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ABSTRACT

This paper addresses the training of health workers to become more effective communicators and teachers in third world countries. The first part introduces the health worker to the traditional medicine and cultural beliefs of third world people. Part two on educational psychology deals with helping the health worker manage people's resistance to change, and how to persuade and motivate people to change unhealthy behavioral practices. The third part focuses on creating a positive learning climate, familiarizing the health worker with how to show people a remedy is harmful without offending them, and on how to help people understand new ideas. A variety of teaching methods and aids for the health worker to use is discussed in the fourth part. The final part gives several important reasons for health workers to evaluate the health program and teaching, explains the four basic elements that should be evaluated, and puts the four different types of evaluation into "time" categories. (Author/JD)

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COMMUNICATION METHODS FOR HEALTH WORKERS TO USE WHEN TEACHING IN THE THIRD WORLD

by
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Graduate Project Paper
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This paper was written under the guidance of
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ABSTRACT

The purpose of this paper is to prepare health workers for teaching in the third world. In order for a person to be an effective teacher, one must first be an effective communicator. This paper deals with training health workers to become more effective communicators and teachers.

Part I on cultural analysis introduces the health worker to traditional medicine and to the cultural beliefs of third world people.

Part II on educational psychology deals with helping the health worker manage people's resistance to change, and on how to persuade and motivate people to change their unhealthy behavioral practices.

Part III on the learning process focusses on creating a positive learning climate, familiarizes the health worker with how to show people a remedy is harmful without offending them, and on how to help people understand new ideas.

Part IV on teaching methods offers a variety of teaching methods and aids for the health worker to use.

Part V on evaluation gives several important reasons for having them, explains the four basic elements that should be evaluated, and puts the four different types of evaluation into "time" categories.

With an understanding of the information provided in these five sections, the health worker will be prepared to be an effective communicator and teacher. Only through effective communicating and teaching will the health worker be successful in influencing people to improve their health care practices.

Introduction

The purpose of this paper is to prepare health workers for teaching in the third world. In order for a person to be an effective teacher, one must first be an effective communicator. This paper deals with training health workers to become more effective communicators and teachers.

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Part I: Cultural Analysis

People in the United States usually use the world "health" to refer to the physical well-being of the human body. But, what does the term "health", that we so often use, really mean? The World Health Organization (WHO) defines the word "health" as a "state of complete physical, mental, and social well-being and not merely an absence of disease and infirmity."[1] Therefore, WHO subscribes to the concept of biopsychosocial health which takes into account the physical, mental, social, spiritual, and moral well-being of the individual. In other words, the biopsychosocial concept of health is concerned with caring for the "whole" person, and not just the physical aspect of health.

Traditional medicine is based upon this biopsychosocial concept of health. Before examining traditional medicine, a short description of modern medicine will be offered. Modern medicine bases its belief for the cause of diseases on materially verifiable, physiopathological elements, such as by microbes, parasites, viruses, and other organic elements. In the United States modern medicine is the prevalent form of medicine used. Physicians are concerned with the physical well-being of the individual, psychiastrists are concerned with the mental well-being of the individual, the religious leader is concerned with the spiritual and moral well-being of the individual, and the lawyer is concerned with maintaining the social order of society. In the developed countries each professional deals with a different aspect of the person based on specialization and less on the biopsychosocial aspect of health. In addition to having scienti-

fically proven methods of treating illness, modern medicine is equally concerned with preventing illness through maintaining nutritional diets, sanitation and hygiene, and disease prevention through immunization. Most of the educated people in the cities of the Third World rely on modern medical doctors for treatment, however, it is not uncommon for them to go to both types of doctors.

Outside the United States, in many parts of the world, a more primitive form of medicine than modern medicine is practiced, called traditional medicine. Traditional medicine is also called folk medicine and indigeneous medicine. Traditional medicine is by no means a haphazard way of ordering, classifying, explaining, and treating illness. Traditional doctors are professionals in diagnosing the problem, understanding the person's mental state, and in knowing exactly what remedy should be used for the problem.

Traditional medicine helps people in the rural Third World to cope with disease, where primary health care is not available. Besides dealing with the physical aspects of healing, traditional medicine must help people to deal with the believed supernatural forces. Many Third World people view disease as something that is usually caused by supernatural forces, rather than by organic elements. Cultural beliefs in developing countries in rural areas are grounded heavily in supernatural beliefs. Traditional medicine relies on the use of herbs or curative plants for healing the sick.

The following list gives some advantages to traditional medicine:

Advantages of traditional medicine[2]

1. Herbs available locally are cheaper than expensive Western drugs.

2. Traditional medicine deals with the personal and social aspects of illness (e.g. anger, anxiety, and social conflict), and not just the physical aspects of illness.

3. Avoids the use of dangerous drugs sold by international drug companies. The use of dangerous drugs is restricted in the U.S., but some developing countries have an inadequate control over what those companies sell. As a result, harmful drugs get in the wrong hands.

4. Avoids draining the country's currency by not buying non-essential medicine for treating illness.

Hopefully this list gives a better understanding why traditional medicine is beneficial and accepted.

However, no one can deny the obvious advantages of modern-scientific-medicine's mastery of the art of healing serious physical illnesses, performing surgical operations, and dealing with acute infections. Through the use of today's technological advances doctors have the best equipment and medicines available than ever before. Besides modern medicine's marvelous ability to treat illnesses, it is equally knowledgeable on how to prevent illnesses. Because modern medicine has so much to offer in regards to the treatment and prevention of disease, it would be in the developing countries best interests to accept volunteer health workers into their countries to improve the health of their people and save lives.

What would the volunteer health workers role be in a health care program in the Third World? The primary goal of Overseas Volunteer Health Educators in the third world is to instruct

third world people about how to treat and prevent illness and injury so communities in the developing countries will be able to provide their own personnel for health care services and education eventually. Health workers from the developed countries are teaching people of developing countries (people in general and village health workers in particular) how to care for their own health. Health workers are to take advantage of every opportunity to help people, especially to help patients learn how to care for themselves in the future.

Who is the village health worker in the developing country that is to be taught by the volunteer health worker? The village health worker will be a person who is capable of helping others in their community to stay healthy and when they are sick to help them get better. Village health workers can learn from the overseas health worker through watching and helping the overseas worker. People in a community are usually selected by other villagers to serve as health workers, since they are well respected and are seen as intellectually competent to learn the art of caring for others.

Up to this point, modern and traditional medicine have been described. The next section will present the cultural beliefs and practices of people in the third world. The effects folk medicine can have on people will be discussed first.

Namboze[3] and Micozzi[4] both put cultural beliefs and practices into four separate categories that can overlap. Both use different terminology. Micozzi gives a scientific perspective while Nambozi explains how the health educator is to respond to the remedies in the given category. Though the terminology and

perspective may be different they both seem to allude to the same divisions. These four categories represent the effects that folk medicine have on people:

1. Pharmacological/Beneficial Effect - A herb or natural product has direct therapeutic value in helping people recover from illness. Because of its beneficial effect, health educators should encourage people to continue to use it.

2. Nonspecific/Harmless Effect - The herb or natural product has no direct therapeutic effect, though a "placebo" effect may result from the use of the herb. As I understand it the "placebo" effect involves the faith of the patient in combination with a particular bodily condition that results from taking the drug (e.g. relaxation, or enhancing one's awareness, etc.) and as a result may, in fact, contribute to healing. Because this has no therapeutic value, it should not be used, since it leads people to wrongly believe that something caused them to be healed that did not heal them (if in fact they do become healed).

3. Uncertain/Symbolic Effect - This effect is difficult to assess, since there can be different interpretations due to the use of an herb having a cultural specific meaning. The healing can take place through the "placebo" effect, rather than through the herb having any actual healing effect. Micozzi calls this a symbolic effect, since a symbolic agent acts to combine issues of faith, personality, and culture into the process of treatment. Health educators must observe and analyze whether these ways of treatment are good.

4. Harmful/Toxic Effect - The use of harmful medicines or drugs has a direct negative health effect on people's attitudes about the use of these drugs.

The overseas health educator will have to analyze how the folk remedies used fit into this classification system and act accordingly by encouraging or discouraging the use of the herb.

How do third world cultural beliefs shape their perceptions of disease? Namboze[5] develops the following categories, which look at the three basic ways that cultural beliefs shape

people's perceptions about the cause of disease:

1. Magic Supernatural - Illness can be caused by one of the following supernatural factors: Angry gods, spirits, witchcraft, evil eye, broken taboos, failure to abide in socially acceptable ways, and the failure to perform certain rituals.

2. Infectious diseases - Thses diseases are received by coming into close contact with an infected person.

3. Hereditary diseases - These are diseases or physical problems that are acquired by someone through his/her parents. As I understand it, this category can also refer to the so-called evil spirits that harm somebody out of revenge because of wrong committed by the parents. Such wrongs committed by the parents might include the failure to abide by social rules or the failure to perform designated rituals considered as important. The dead ancestors are believed to influence the well-being of the living.

The diagram that follows will illustrate how the four categories of drug activity distinguishes the good from the evil, and the natural from the supernatural. The four types of practioners that practice the four types of drug activity can be put into the following diagram[12]:

	REAL	IMAGINED
GOOD	Physical Healing / Counseling	Supernatural Protection
EVIL	Physical Vengeance	Supernatural Vengeance

Quadrant 1 - These healers rely on "natural" processes to treat disease without any (or only very little) use of supernatural intervention. These healers are believed to be good.

Quadrant 2 - This group of practioners are considered to have been born with special powers. It is believed that these practioners have been empowered with the ability to protect people from supernatural threat.

Quadrant 3 - This category consists of malpractioners or evil-doers, including poison specialists, dealers in debilitating drugs, and malpractioners who illegally give harmful substances to others.

Quadrant 4 - These people are believed to be all-powerful, supernaturally and destructively evil. Such people are called "witches" or "wizards".

The practioners of quadrant one and two are good men who use their knowledge and/or their supposed supernatural powers to help people get better. Through the people's strong beliefs in the supernatural healer of quadrant two, people are actually able, at times, to be cured through faith in the healer's remedy. Supernatural beliefs help people to cope with their fears and insecurities. Fear and worry can cause illness as Americans are all too aware of. Likewise, illness can cause fear. Therefore, the practioners of quadrant one and two try to alleviate fear. On the other hand, the practioner of quadrant three and four are evil men who arouse fear by causing harm to others (both physical and psychological harm).

The fear categories of practioners help show us how the evil practioners can cast a bad reputation on the good doctors of traditional medicine, especially when people of developed countries are more familiar with the term "witch doctor" than with "traditional doctor".

The conclusion is that there are both good and bad categories of practioners of medicine; witch doctors and traditional healers are directly opposed to each other.

A knowledge of witchcraft can help the Westerner develop a greater understanding into the cultural beliefs of people in the developing nations. The World Book Encyclopedia[6] defines witchcraft as "..the use of supposed magic powers, generally to harm people or to damage their property. A witch is a person believed to have received such powers from evil spirits." A person believes he is bewitched when a witch casts supposed magic powers on a person to harm him. This same encyclopedia explains that some scholars claim that more than half of the world today believe witches can influence their lives. Witches are women, and sorcerers, warlocks, and wizards are men. The evil spirit of witchcraft can be received in different ways, such as while a child is in the mother's womb or it can be bought or it can be transmitted by succession. Witchcraft is rarely used for good purposes. The cult of witchcraft in the third world is comparable to the Klu Klux Klan and the Mafia in the United States, all of which exert fear on society. Witches gather together for nocturnal banquets to feast on human flesh, the victims of their evil practices.

The opposite of witch doctors, namely traditional doctors or healers are very knowledgeable about many things in their culture, such as their people's social problems, traditions, mentality, psyche, and are expert on spiritual matters. Traditional doctors or healers are good people who are concerned with the well-being of their people, and are dedicated to their

health. As mentioned earlier, traditional doctors are concerned with the biopsychosocial health of individuals. As a result, biopsychosocial practioners of traditional medicine are involved in both counseling and treating the physical illness. The traditional healer is a respected person within the community. The traditional doctor not only treats illness, but also is believed able to prevent misfortune, and promote the happiness of those who consult him.

In addition to the doctor-role, the traditional medicine man takes on a servant-of-God role within the community. In this role he speaks to the gods on the people's behalf to beg for forgiveness and healing from the gods or spirits for his clients. He is believed to have been given the mysteries of the gods, and therefore is able to interpret the messages given by him to the gods.

The profession of traditional doctors requires a person being well learned in the different types of medicine produced by the various types of plants and minerals as well as knowing where they are to be found, and the proper dosage to give a person.

People learn about the medical profession usually from parents through apprenticeships. Throughout life the doctor will continue to discuss and learn from his forefathers to obtain more medical knowledge. The medical knowledge is to be kept a secret, so that others don't steal their insights on good cures. The reason for this secretiveness about medical knowledge is that the more you know and the more well known you become for effective treatment the more wealth one will accumulate for him and his family. Since the training for the profession of traditional doctor is a life-long

process, the doctor must go through a limitless number of graduations. These graduations are considered as different learning stages.

A doctor, as part of his self-learning process will go into the forest alone, where he does original research on medical herbs and meditates on the most clinical way of dealing with the sick. In accordance with his servant-of-God-role he takes it upon himself to fast, in order to identify with hungry, poor, and sick in the world. Interesting more advanced graduates in the profession are known to have sacrificed their blood to God, and have done acts of self-denial, excruciating self-torture, and have done daring and dangerous acts of bravery.

Contrary to the witch doctor, the traditional medical doctor lives by a code of ethics and morality. He is concerned with treating his patients with the best possible way he is capable of. The doctor bases payment for treatment on the patients ability to pay. The doctor charges the patient a modest fee for his medical service rendered to the patient. Needless to say the traditional doctor requires no insurance card before treatment!

Besides being learned in medical knowledge, the traditional doctor has a profound knowledge of his version of the anatomy of the human body. To diagnose a disease the traditional healer looks into the history of the disease within the patient and his family, and the patient undergoes a thorough examination, in which the doctor meticulously observes the clinical signs of the body. The examination period sometimes

takes days for the doctor to diagnose the disease. The diagnosis stage helps the doctor to understand both the patients mental and physical state, so he can accurately identify the part of the body that is causing the particular problem. After the disease is identified, the doctor explains to the patient what he believes the person is suffering from, and then the doctor will obtain the proper herbs from the forest, offer already prepared medicine that he has.

During the recuperation period, members of the whole community visit the patient, bring gifts, and wish the person well. People constantly come to give the sick person moral support, courage, and hope for recovery. The traditional doctor is also a source of support, as he offers the patient empathy, sympathy, and hope for recovery.

The process of treatment that the doctor goes through can be summarized in the following list:

1. Diagnosis of the history of the disease
2. Thorough examination of the body
3. Identifies patient's illness
4. Illness explained to patient
5. Prescribes method for treatment
6. Allows the patient to have visitors during recuperation period

The power of belief in traditional medicine of the third world people can be so strong that they can actually heal themselves through faith itself. A "placebo effect" results because of the patient's faith in the traditional doctor. The patient strongly believes that whatever the traditional doctor prescribes for a cure will "positively effect" their health. The placebo effect can result when using medicine or when curative objects are worn by the patient. The power of the doctor's

word seems more powerful than the medicine itself.

Curative objects can have a healing effect on persons by sheer faith of the patient that the object will heal them. Curative objects may be used for many kinds of problems and diseases, such as headaches, stomach aches, mental and nervous disorders.

Why does the placebo effect work? It works, because the traditional doctor shows genuine concern about the patient, helps the person gain hope in recovery, and helps the person relax and grow less fearful.

The following example illustrates a man's strong faith in the prescription given to him by his doctor:

> A man who had a bad headache came to the doctor, who gave him a small piece of sweet potato to eat and told him it was a strong pain killer. He believed her, and so he quickly recovered from his painful headache.[7]

This example helps to show how traditional medicine is useful in curing problems that are triggered in the patient's mind, because of fear, anxiety, and worry.

It is interesting to note that just as a remedy with direct therapeutic value that should make a person get better can actually make a person become sicker, if the person believes strongly enough that the medicine given to him will harm him. That is to say that one's fear in something can make him sick. Here is a story that illustrates this point:

> A health worker gave a lady who had a miscarriage some orange juice to drink. The Vitamin C in the orange juice should help her gain strength. Though she believed the orange juice would harm her, she drank it any way to satisfy the health worker. Her fear became so great and she believed she would die. She, in fact, made herself sicker and weaker than before she had the orange juice. The health worker was aware that she believed injections

> Could help sick people. Therefore, she was given one injection of distilled water, which has no therapeutic value. She quickly regained strength, because of her faith in injections.

This example helps give a general insight into how fear can make a person sick, and in particular it shows how fear in a remedy used by an overseas health worker can make a person sicker, if the person believes that the remedy used will harm them. In the case of the above example the health worker later informed the woman that the injection did not heal her, but that her own body recovered by itself. It was her belief that injections could help her that allowed her to relax herself, gain hope, and in turn be able to gain strength.

Just as people become ill out of fear that a method of treatment will harm them, similarly people can make themselves ill if they believe they have been bewitched. Many times so much fear is generated about being bewitched that people make themselves sick, and then they think they are sick, because they were bewitched. In many cultures people believe that witches can bewtich them. Bewitching means that a witch casts an evil spell on someone to harm them. People become the victim of their own fears, when they believe they have been bewitched or given the evil eye. The person is the victim of his own fears, because a witch has no real power over other people, except for making others believe that she does have power over them. The only people that can be bewitched are those who believe that they can be bewitched. Therefore, it is impossible to bewitch those people who do not believe in

witchcraft. Also, a person after becoming seriously ill may contribute his illness to a witch who has bewitched him, rather than to think the cause of sickness is from natural causes.

People in the rural third world many times contribute the cause of illness to some wrong a person did (or his parents did). They believe that if you anger a spirit (perhaps the spirit of a dead ancestor), or god, then the spirit or god will revenge that person with some misfortune (such as illness).

At this point, some remedies for several different types of illnesses and problems in developing countries will be presented.[9 10 11]

ILLNESS OR PROBLEM	REMEDY
Blurred vision	Human feces is smeared around (but not in) the eye to cure blurred vision. This remedy is harmful.
Burns	The concentrated sugar in bee's honey is put on a burn to prevent bacterial growth.
Common Cold	A hot tea is made from boiling one or two small branches of a camomile in water. This tea is drunk only at night, since it makes the patient sweat.
Control Bleeding	After the spines of a cactus have been cut off part of the fleshy stem, considered as a clean bandage, is applied to cut to stop the bleeding. A cloth or rope is tied around part of the fleshy cactus stem, which is placed on the cut.

ILLNESS OR PROBLEM	REMEDY
Goiter (iodine deficiency in thyroid)	Tie a crab to a goiter (at the front-side of the neck). Though this remedy is not very helpful to curing goiter, it will not harm the person.
Healing Chronic Wounds and Ulcers	The thin sac or membrane (amnion) attached to the placenta, better known as afterbirth, has proven to be composed of powerful healing properties.
Reducing the swelling of the feet	A patient drinks one or two glasses of a tea made by boiling a large handful of corn silk in water.
Sore throat, hoarse voice, and Painful Cough	At night the patient's chest is rubbed with grease, and then cotton or newspaper is placed over the part of the body that is rubbed down. Afterwards the patient drinks a hot chocolate drink that is made from cooking chocolate and cocoa butter together in water. During treatment the patient is required to wear a sweater to keep warm.
Sunburn	After rubbing 4 or 5 hibiscus flowers together, they are put in lukewarm water, in which the person bathes. The water will turn gummy and sticky.
Tuberculosis	A drink is made from mixing a small amount of cow dung (that is picked up with the point of a knife) into a glass of cow's milk. This mixture is drunk in the morning for one or two months until the patient becomes better.

In conclusion, this part of the paper has dealt with the cultural analysis of traditional medicine in the developing countries. The major topic headings included:

- Biopsychosocial health
- Modern medicine
- Traditional medicine
- The primary goal of overseas volunteer health workers
- Four categories of cultural beliefs and practices
- Three basic ways that cultural beliefs shape people's perception about the cause of disease
- Four types of practioners
- Witches and Witchcraft
- Traditional doctors
- "Placebo Effect"
- Remedies to illnesses and problems used in the third world

Footnotes to Part I

1. E. S. Ataudo, "Traditional Medicine and Biopsychosocial Fulfilment in African Health," Social Science and Medicine, Vol. 21, No. 12 (1985), p. 1345.

2. U. B. Ballay, "Doctors and Healers in Africa: The Example of Southeast Nigeria," Impact of Science on Society, Vol. 36, No. 143 (1986), p. 291.

3. Josephine M. Nambozi, "Health and Culture in an African Society," Social Science and Medicine, Vol. 17, No. 24 (1983), p. 2041.

4. Marc S. Micozzi, M.D., "Health Care," Human Organization: Journal of the Society for Applied Anthropology, Vol. 42, No. 4 (Winter 1983), p. 351.

5. Josephine M. Nambozi, "Health and Culture in an African Society," Social Science and Medicine, Vol. 17, No. 24 (1983), p. 2041.

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7. David Werner, Where There Is No Doctor: A Village Health Care Handbook, 8th rev. ed. (Palo Alto, Calif.: The Hesperian Foundation, 1982), p. 2.

8. Ibid., p. 4.

9. Ibid., p. 12.

10. David Werner and Bill Bower, Helping Health Workers Learn: A Book of Methods, Aids, and Ideas for Instructors at the Village Level (Palo Alto, Calif.: The Hesperian Foundation, 1982), pp. 7-6 to 7-7.

11. George Simeon, Illness and Curing in a Guatemalan Village: A Study of Ethnomedicine (Honolulu: University of Hawaii, Spring 1977), pp. 28, 37, 42, and 122.

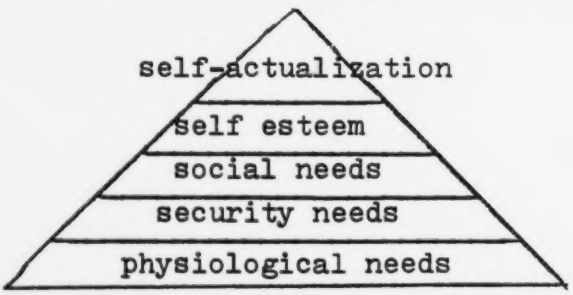
12. Norman N. Miller, "Traditional Medicine in East Africa: The Search for a Synthesis", Development Digest, Vol. 19, No. 1 (Jan. 1981), pp. 101-102.

Part II: Educational Psychology

This section on educational psychology will explain Maslow's need hierarchy, the importance of doing a needs assessment, the principle goal and the three general purposes of health education, and the need for health programs to state clear and concise goals and objectives for health workers to follow. After this, the health worker will be familiarized with how to deal with other people's resistance to change, and then an attitude-change theory will be presented. Some helpful tips on how to make oneself more influential will be discussed. Finally, the importance of using reinforcement as a means of getting people motivated to learn and change attitudes and behaviors will be explained.

A person's behavior is influenced by his individual needs. Each person has individual needs, and these needs for the same person will differ from one time to another. People have both physical and psychological needs. Physical needs are innate, and consist of such needs as eating and drinking to overcome hunger and thirst. Psychological needs are learned, and consist of such needs as the need for security, intellectual stimulation, and self-actualization.

Abraham Maslow developed a hierarchy of needs, in which he classified human needs along a scale of priority.



In Maslow's hierarchy the lower level needs or physical needs must be fulfilled before the higher level needs or psychological needs are satisfied. Lower level needs must be satisfied before a person will be concerned with meeting higher needs. Essentially Maslow's need hierarchy is a theory on motivation. As lower level needs are satisfied, people are motivated to strive after higher level needs. People will become preoccupied with the need that is least satisfied, and thus the stronger the motivational force to achieve that need.

This has important implications for health workers in the developing world. If people's survival needs are not met, the people will have little motivation or interest in learning about sanitation, nutritional diets, preventing illness, and first aid. Hungry people's primary concern is to find food, and all energy will be directed toward achieving that goal. Thus, it becomes critical that a health worker is in touch with the needs of local people before teaching them on health care. A primary task of health workers will be to show how good health practices will fulfill people's most important needs.

There are several different methods for conducting a needs analysis of local people's needs. Here are some ways that health personnel can do a needs analysis.

1. Research or studies can be done on a particular area to determine the needs of people in that area. Reports and records on a particular region can help trends or give clues to the causes of problems.

2. Questionaires or surveys can be given to local residence to find out what people's needs are.

3. Group Assessment/Discussion can be done among the local people. In this method the people of the community gather together to help each

other classify individual and community needs. This helps people of the community to become resources for one another in the learning process.

4. Resource people (local leaders), some government leaders, and other personnel from other agencies concerned with development activities would be helpful contacts for health workers for obtaining more information on the people of the community.

The World Health Organization (WHO) defines health education in the following way:

> "Health education, like general education is concerned with changes in knowledge, feelings, and behavior of people. In its most usual forms it concentrates on developing such health practices as are believed to bring about the best possible state of well-being."[1]

This definition reflects the psychosocial definition of health. and implies that health education demands knowledge, attitude, and behavior changes that will help people become healthier.

According to WHO the principle goal of health education is to help people to achieve health by their own actions and efforts. Health education cannot begin until the people of a given community are interested in improving their own health. It is the responsibility of health educators to help people seriously commit themselves to making necessary changes to improve their health. WHO believes that health education has three general purposes, which include:[2]

1. To make health a valued community asset.
2. To help individuals to become competent in and to carry on those activities they must undertake temselves, as individuals or in small groups, in order to realize fully the state of health defined in the Constitution of the World Health Organization.
3. To promote the development and proper use of health services.

It is critical that educators develop objectives and goals, since they offer direction to the instructional process. Goals and objectives help teachers focus on exactly why they are expected to teach. Greer, Miller, and Verduin claim that "Objectives are the key to a successful adult instructional program."[3] While, many authors use the term goals and objectives interchangeably, others make a distinction between the two terms. The distinction seems to be an important one, in which Donaldson and Scannell[4] make by defining a training goal as a "general statement of what training is intended to accomplish", and a training objective as a "specific statement on change in the knowledge, skills, or attitudinal areas." Goals are longe-range aims for educators to accomplish.

Objectives are short-term aims for educators to achieve. Objectives are descriptive statements of the desired outcome of teaching. The objectives are written down to guide teachers in preparing content to be taught, structuring learning experiences, selecting teaching materials, and organizing the process of instruction as a whole. Objectives show the behavioral change that is desired, and so provide a means of evaluating how effective the learning experience has been for the learner (that is if the desired behavioral change has been achieved). Objectives also provide a means of informing the public (including monetary donors) of the organizations's purposes and programs. Objectives should be stated in behavioral terms. When objectives are stated as such, the teacher can observe the behavior demonstrated by the learner. When objectives are explained in behavioral terms the trainee is required to demonstrate the material that was learned, so that the teacher can observe and

find out whether what was taught was actually learned. Thus, the objective must be both measureable and observeable. Clearly stated objectives avoid vague and unclear statements about what is to be achieved.

A health education team to the rural third world could have the following overall goal for a specific targetted community:

> By the end of a two-year period the health education team will make people aware of the causes of illness and ways to prevent it; and will establish a more intense training program for certain community members who will become health workers for their own community after the volunteers leave.

These village health workers will learn of causes, prevention, and treatment of illness, of first aid treatment, and of methods for teaching community members on good health practices.

Because objectives are short-range accomplishments to be achieved there may be literally hundreds of objectives to be achieved over the course of a two-year period. In addition to establishing objectives to be accomplished from week to week, health educators will need to construct objectives to be accomplished at every class lesson they have. All objectives will lead to accomplishing the central goal. Knowledge of the goal and the objectives will contribute to a well organized, efficient, and effective health care program. Health workers will know exactly what they are expected to teach and of what the learners are expected to learn. An example of an objective could be:

> After seeing a puppet show on Dirty Dan the learners will be able to describe at least four unsanitary things that Dirty Dan did.

Before a health worker is ready to teach in the community, it will be crucial for him to understand people's needs, and to have a clear fo us on the goals of the health program. For this reason, the previous section briefly described the importance of the health worker coming into touch with people's needs and with helping them to meet their basic needs before and during teaching, and of the necessity of specifying clearly stated goals and objectives. When the health worker has a clear understanding into the needs of the people and the goals of the health program, then teaching can begin. Health workers must be prepared for people to resist what they teach them. Knowing how to effectively deal with resistance will be a critical first step in influencing others; for this reason the next section will concentrate on how to deal with resistance from others.

Learning is an active process of integrating new knowledge, ideas, skills, and values into one's behavior. Learning and changing one's old habits for new ways is difficult, because people do not like to give up old ways of doing things. Learners may defend themselves against people who try to force them to admit their problems and to change them. People usually do not like to be changed by anyone. Only, the learner himself can make the decision to learn and in turn change. The health worker may be able to motivate a person to change, but when it comes down to actually changing an attitude or behavior it is up to the learner himself to change. The teacher should see himself as a facilitator, a helper, and an encourager for helping the learner to discover new knowledge, practice new skills, and gain insights into new attitudes and ideas for himself.

Learning may include unlearning faulty information, such as harmful folk remedies and poor health practices, in order to improve health. Unlearning harmful practices is most successful when teachers clearly explain the reasons why the old practice is harmful and the new practice beneficial, so that people understand the reasons for both.

The learner is more easily influenced and ultimately changed when he is in an environment where:[5]

a. No one insists on changing him
b. He can express himself freely
c. He feels accepted regardless of his attitude
d. He is not attacked or put on the defensive

To motivate people to change it is important to establish a good relationship between the teacher and the learner. Robinson[6] explains that:

> "...the nature of the relationship between the helper and the learner may have a greater impact on learning than any other single factor."

Kelman[7] identifies three processes of attitude change, which point to the various levels of motivation. The processes include: Compliance, identification, and internalization. Compliance and identification will not effect permanent changes in people, whereas internalization does. The three processes are described below:

1. Compliance - A person who complies with the attitude change the teacher is trying to bring about does so, becasue he expects to be rewarded, wants to avoid punishment, and/or wishes to receive approval. With compliance the learner really does not accept the change, and will most likely revert back to old ways when the health worker leaves.

2. Identification - Identification here refers to the situation where the client accepts or agrees

with what the teacher is saying and may even act on it for a short time, but the learner is not motivated enough to permanently accept the new behavior or attitude for himself. The learner in this case is often motivated, because he wants to establish a satisfactory relationship with the teacher.

3. Internalization - A person who internalizes new attitudes and behaviors must reorganize his value system to accommodate these new attitudes and behaviors, which will become part of his permanent behavior pattern.

The ultimate goal for the health worker will be to bring about permanent changes in attitudes and behaviors that will be continued long after the health worker leaves.

If the health worker expects to permanently change people's health practice behavior patterns, then he must work to internalize those new values. To internalize a new attitude or behavior the teacher will have to help learners understand the reaons for the new behavior, its value, and its relationship to his culture. Another important aspect for helping internalize a new behavior is to maintain a good relationship with the learners. Teachers who are able to establish good interpersonal relationships with the learners will be more likely to change people by motivating and influencing them to adopt good health practices.

In regards to compliance and identification, Kelman explains that they can be used to persuade people when sustaining a behavior is not necessary (such as for a vaccination shot that will only be administered once).

When people try to change others they usually encounter resistance by those they are trying to change. Robert Conklin explains that:

"Resistance is probably the most common barrier to effective human relationships that exists." [8]

Resistance, therefore, inhibits people's efforts to establish warm and friendly relationships. Since, establishing good relationships is critical to the effective teacher who tries to affect change, it will be absolutely necessary to know how to deal with resistance. Resistance that is not well managed will impair the effectiveness of people working together, decrease the success of the teacher's efforts, and the depressing effect of resistance may cause "burn-out" by causing the teacher to feel hostility and callousness toward the learners.

To maintain a climate of cooperation and harmony, the teacher must learn how to cope with or manage resistance. Beware of the fact that resistance often triggers resistance. How does the health worker deal with this resistance? First, the health worker's success in handling resistance will be dependent upon his attitude toward it. The health worker must respect people's ability to resist, as a means of really trying to find out reasons for new ways. Having gone through a period of resistance in the long-run will help strengthen people's knowledge of the subject and will create and ultimately maintain new beliefs, attitudes, values, and behaviors. Robert Conklin [9] gives his readers eight general rules for handling resistance. These rules are listed below.

1. Watch your language - Do not use language that dictates to learners what they must do. People don't like when others order or force them to do things.

2. Be likable - People are less willing to resist someone they like, than those they do not like.

3. Give resistance status - Giving resistance status refers to honoring people's resistance and allowing their resistance to be a source of prestige for them. Encourage the expression of feelings, ideas, opinions, and attitudes. Get the resistance out into the open, in order to clear up any doubts about the new practice, behavior, or attitude. Never humiliate others! Likewise, teachers should honestly and gently express their ideas, and purest intent and concerns.

4. Don't hassle - Never argue, fight, become defensive, or show any trace of hostility in your voice or behavior. People intuitively sense even the slightest amount of hostility, and when they do they become defensive. The teacher should try to show the students ways he agrees with them on, and avoid drawing attention to disagreements as much as possible. Though the instructor may win an argument with the learner, the learner will most likely rebel afterwards against his teacher, in regards to what the teacher wants him to do. Conklin's analogy for this is that the instructor may win the battle, but lose the war with the student.

5. Don't force resistance to be defended - People become defensive if they are put into a position to defend their reasons for resisting. Instead the teacher should replace one thought with another thought to neutralize the conversation, so others do not become defensive.

6. Don't make the other person wrong - When a person proves someone else wrong, the other person will turn against the other person "Trying to show that the cause of a person's resistance is false or erroneous is the biggest mistake people make in coping with resistance." The trick to successfully diluting resistance and getting people to respond positively is to help people to be right in as many ways as possible. The rule of thumb is to never correct anyone unless it is absolutely necessary.

7. Don't be afraid to lose to win - Let people resist if they want to; do not become defensive and do not suppress people's desire to express resistant attitudes. The secret is to not get uptight about the resistant attitudes that are expressed, try to remain calm and collected. Let people blow off steam first, and then they will be ready to think

things out. The quality needed here by the teacher is empathy (the ability to understand others). Empathy will help subdue resistance and create a closer relationship between the learner and the teacher.

8. Use patience, ask questions, and listen - Patiently listening and asking questions is the best method for neutralizing resistance within others. Try to listen intently and with interest. People sometimes resist as a means to stalling for more time to think things out, so asking questions and listening to the other person helps the other person sort things out in his mind. Never argue over an issue! The teacher should restrain himself from criticizing the other person on how the student should be.

These eight rules are helpful ways of preventing or diminishing the likelihood that the learners will resist the teacher's ideas. What follows are some suggestions on the basic skills needed for removing resistance as an obstacle in the teaching process.

Robert Conklin defines resistance as

"thought transformed into feeling"

and later adds that,

"The objecting, the resisting, is an emotion aroused by an opinion, a reaction, an attitude." [10]

Conklin believes that a person can take away resistance by changing the thought that causes the resistance. The health worker will be required to neutralize resistance by helping others to alter their way of thinking. While Conklin admits that neutralizing resistance through altering others way of thinking cannot always be accomplished, he indicates that if it is achieved, it will be for one of three reasons. These three ways to offset resistance are through replacement, reduction, and conversion to resistance. The three terms are

described below.

1. Replacement refers to the process of replacing the thought causing resistance with another thought that does not trigger resistance. Replacement can take any of the following forms:

   a. Work around it and leave it behind - The instructor must recognize the person's reason for resisting, encourage the learner to fully explain his feelings, show interest by listening carefully as the person expresses his feelings and beliefs, acknowledge the other person's viewpoints, and honor the other person's opinions as important. After the person expresses his feelings, the thought creating the resistance will be gradually replaced by more openness to the instructor's ideas.

   b. Taking a detour - This involves replacing the resistant person's thought with a change of conversation, then returning to the other person's proposal. If the person is resistant to the issue of conversation, leave it, switch to a different topic, and then wander back to the original issue under discussion.

   c. Pay a compliment - A word of praise or a compliment, even if it is about the objection itself, may replace thoughts of resistance with thoughts of agreement. Anger defensiveness, and resistance give way to feelings of pride, agreement, and cooperation.

   d. Talk benefits - Here a person replaces thoughts of resistance with more pleasureable thoughts (thoughts of adventure, fun, satisfaction, recognition, prestige, enjoyment, and/or pleasure). Speak of benefits and play on positive emotions. One word of caution is to save most of the advantages for after the person has expressed his viewpoints, rather than giving a barrage of benefits at the beginning of the discussion. Probing with questions may be an important first step, since the person may be freely express his feelings right away.

2. Neutralizing resistance by reduction - The second way to offset resistance involves modifying the intensity of the opposition. Resistance by reduction makes resistance seem smaller and of little consequence. Reduction can take several forms.

a. Exaggerating the causes of resistance - By exaggerating the consequences a person opposing the resister will dwell on a subject, blow it out of proportion, and talk it to death, so that the issue appears much bigger than it really is. Usually by doing this, the resistant person will gradually realize that the reason for resisting is not as big of an issue as he thought it once was.

b. Reducing resistance by comparison - This method involves reducing resistance within the other person by comparing the reason for resistance to something that would cause a great deal more resistance within that person.

c. Reducing resistance to comfort - Studies have shown that people have less resistance when they are sitting than when they are standing. Therefore, the more comfortable someone is the less resistant they will tend to be. An uncomfortable person could be tired, cold, hot, standing, worn out, or tense with anxiety. The job of the person in discussion with the resistant person is to put the person at ease by making them feel more comfortable.

d. Challenge resistance - Sometimes it is necessary to put one's foot down and honestly defy the person resisting by stating that "These are the facts. If you choose to oppose them, so be it, but it won't change my beliefs on the issue."

3. Removing resistance by conversion - When the persuader encounters opposition or resistance, he must try to show the other person advantages for his ideas, in order to get his opponent to agree with his position or ideas. The persuader would show the other person some benefits and/or the opportunities that would open up if his ideas were acted upon. The persuader must be a positive thinker, who is able to convince others of the potential to bring about certain possibilities.

Though the three ways to offset resistance just mentioned - replacement, reduction, and conversion - are recognized as a means of countering resistance, it must be made clear that sometimes people must accept that at times there is nothing that one can do about resistance. When people are determined

to resist the only thing the other person can do is to accept and respect the resister. The resister will have more respect for the person who simply accepts him despite his resistance. Because people like to be unique and different from others, they will resist people who try to change them.

The previous section hopefully has given health workers a better understanding into how to deal with people who are resistant to the new health practices they are attempting to teach them.

The previous section showed how health workers with a knowledge of drive and incentive motivation can use reinforcement techniques to motivate people to learn new behavior patterns. The next section will begin by looking at the general category of cognitive models in motivational theory. After describing the basic concepts of the cognitive model, Heider's balance theory as a specific cognitive approach will be explained. The balance theory should give insight into how people seek to make their beliefs consistent with other beliefs they have.

One category of motivational theories relevant to communication is the cognitive models. Proponents of cognitive theories concentrate upon the mind as the mediator between the stimulus and response. The brain stores the memories of all one's past experiences (some conscious, others subconscious) and from these past experiences it shapes the way we interpret situations and see reality. The mind holds within itself past experiences, beliefs, habits, attitudes, and values. Cognitive theories give insight into the workings of the human mind, and

therefore form a foundation on which to build persuasion theory in general, and attitude-change theories in particular.

Many theories on attitude change deal with balance or consistency in one way or another. Such theories look at the relationship among cognitions to the mind to understand what induces people to change. These cognitive models basically say that people will not change an attitude or behavior if the new cognition does not disturb the current balance. Only when the new cognition is seen as not fitting or is inconsistent with previously held beliefs will the person feel pressure to change, in order to accommodate the new belief within one's belief system (in an attempt to make one's beliefs consistent with each other). Balance theories postulate that a person begins in a stable (or balanced) condition, until something that causes the person to become unstable (or unbalanced). Because cognitions are organized into what the individual's cognition believes to be a relatively consistent structure, the person will seek to make an inconsistent belief consistent.

A person must first recognize the inconsistent or unbalanced elements in a situation before he will be motivated to change his attitudes. Cognition models seek to understand how the person adapts the new attitude or behaviors, and readjusts the old ideas into his belief system.

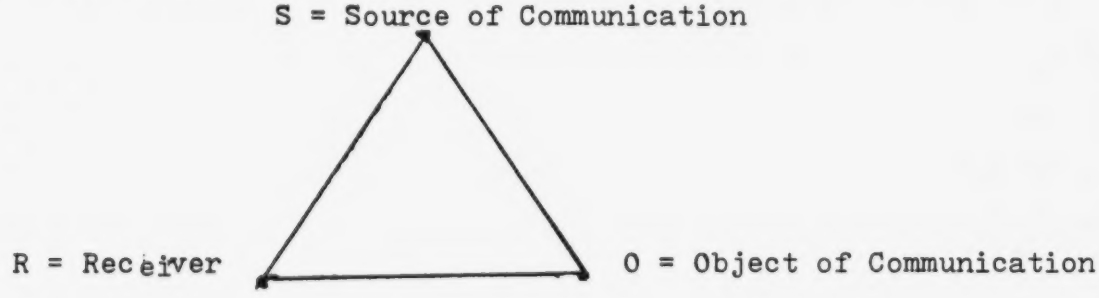
What is that "something" that causes people to feel inconsistency? New information that is not in line with people's previously held attitudes and behaviors causes them to question the truth of the new idea in light of their past experiences and values. Also, hearing conflicting information, views, ideas, and ways of doing things from different, yet respected

sources cause people to feel inconsistency.

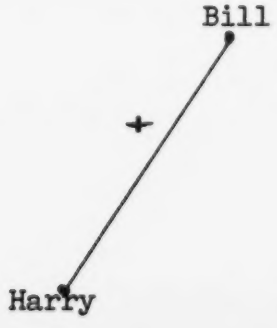
A variety of approaches have been offered for balance theory, each with a different point of focus, terminology, degree of making specific predictions of behavior, and the degree in which empirical verification is used.

One cognitive theory of particular interest here is the balance theory, which is primarily associated with Heider's views. This theory will help the health worker understand how attitudes are changed. This theory concentrates on a person's relationship with other persons and objects. This theory looks at the following factors in a situation to determine if the relationship is balances or unbalanced:

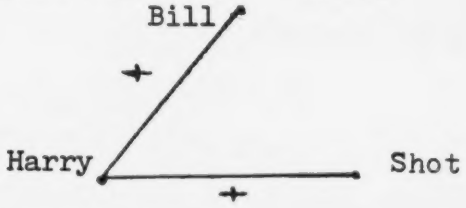
1. Person "R's" cognition of person "S"
2. Person "R's" cognition of "O" (some object or idea)
3. Person "S's" cognition of "O"



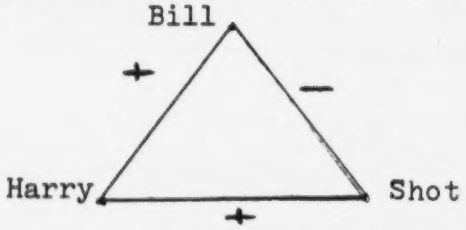
Positive (+) and negative (-) signs are used to distinguish the type of relationship that exists between one point and another point. For example, Bill has a good or positive relationship with Harry, the health worker.



Harry understands that measle vaccination shots will help prevent measles. Because Harry realizes that the couple seconds of pain caused by the shot is far better than the pain caused by measles, it could be said that Harry has a positive outlook to measle vaccination shots.

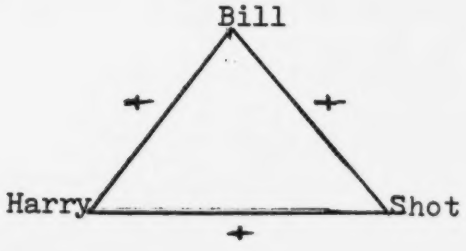


However, Bill cannot imagine what measles are, and so he cannot see the value of having a vaccination shot. Besides this, he is afraid of the pain that will be caused by the shot. Bill could be said to have a negative outlook in regards to having the shot.

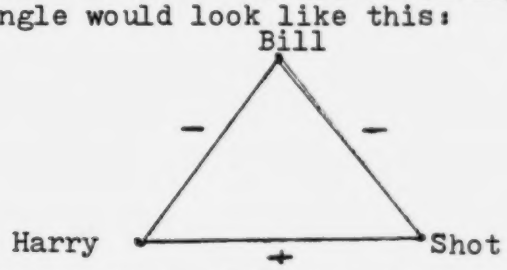


Bill is caught in an unbalanced relationship. There are a few things Bill can do to balance the relationship.

1. In the case where Bill likes Harry more than he dislikes shots, Bill might reason that he likes Harry, who sees the benefits of the measle vaccination shot, so he will balance the relationship by liking shots too. The triangle would then look like this:



2. In the case where Bill feels his fear of shots is greater than his friendship with Harry, he will balance the relationship by not liking Harry as much, so he does not have to change his negative attitude toward receiving shots. The triangle would look like this:



This example illustrates how Bill was put under pressure to reassess his attitudes toward Harry and measle vaccination shots. After reassessing the unbalanced situation, Bill would seek to balance it in one way or another.

Balancing a situation will not always mean completely changing an attitude, but could also involve differentiation. Differentiation refers to how a person will dissociate between two attitude objects. If we return to the example with the measle vaccination shot, Bill may decide the measle shot is not quite as bad as he first thought it was, and may not like Harry quite as much as before. With differentiation, a person may not change an attitude, but simply alter previous perceptions to make room for new experiences.

The health worker will need to help others to recognize how their attitudes and behaviors are inconsistent with other actions and beliefs they hold. By helping people recognize their inconsistencies, people will be motivated to change their attitudes and behaviors in an attempt to make them consistent with their other beliefs and actions.

Heider's balance theory implies that it is critical that

the health worker develop a good or positive relationship with each community member. With a positive relationship developed, villagers will be less inclined to disagree with or respond negatively to the health worker's idea.

In persuasion theory, the first step in influencing people to change their attitudes and behaviors is by arousing their curiosity and creating in them a desire to change. The balance theory just described will be helpful in creating this desire to change within people. Before people are willing to change their customary behaviors, they must understand how some action, behavior, or innovation will meet their needs. Changing attitudes and behaviors will no doubt be challenging to the health worker, since people will be strongly finluenced by other community members on what they are to believe, the values they are to hold, and how they are suppose to act. As a result people will look up to others in their culture to approve or disapprove of the health worker's teachings.

Robert Conklin[11] (who writes on how to influence people's behaviors) states that, "Intellect and logic do not motivate. Emotion does." The health worker must arouse people's emotions, in order to get them motivated to change their behavior patterns. Conklin points out that people assume that others act the way they do because of logic, intelligence and reason. Human beings act out of their emotional state. Emotions disregard what the rational part of the self thinks. Conklin says that thoughts are stimulated by talking to one's intellect, while actions are stimulated by talking to the emotions. On this basis of this concept rests his recommendation for the per-

suader to talk to emotions - not the intellect. To talk to the emotions, in order to influence people, requires patience, gentleness, empathy and persuasiveness. To persuade others, one must talk about the emotional benefits - the advantages of how acting according to certain behavior practices will meet their needs.

The needs, moods, desires, interests and unsolved problems are all wrapped up in the emotional state of an individual. The intensity of emotions from person-to-person differs. The persuader will need to be alert to verbal and nonverbal signs that express other people's feelings, in order to understand their emotional needs, and in turn, be able to either meet those needs with emotional appeal or to stroke those needs. The list below has been formulated from Robert Conklin's examples of emotional needs:

1. To feel wanted
2. To feel loved
3. To feel needed
4. Friendship
5. Belonging
6. Romance
7. Approval
8. Recognition
9. Respected
10. Feeling useful to others
11. Fun
12. Adventure
13. Moving ahead
14. Playtimes
15. Inner joy and peace
16. Self-satisfaction
17. Fulfillment
18. Achievement
19. Actualization of one's uniqueness

Conklin says that, "For people to be happy with your solutions, they have to be unhappy with their problems! If they aren't, they won't act."[12]

This statement shows that it will be critical for the health worker to help people come to understand their problems first. Then, the people will be open to listening to the health worker's suggestions for overcoming their problems and needs.

Conklin advises people to play on positive emotions (people's dreams, ambitions, loves, etc.), rather than on negative emotions (people's doubts, fears, anxieties, insecurities, etc.) on the grounds that it is the nicer thing to do. Therefore, the health worker should not threaten people with the "gloom and doom treatment" about how people's current behavior patterns will most likely lead to some dreadful illness, which will result in death.

C. M. Charles at the end of his book on the subject of educational psychology lists twenty-seven principles that teachers and psychologists have discovered about learners and the condition under which they are able to learn. One of the principles states that: "Emotional involvement increases retention.", and to apply this in the classroom situation, he adds, "When possible, point out whatever might be funny, tragic, shocking, embarrassing, delightful, or perplexing about what is being learned."[13]

If the health worker wants to be influential, he must stroke those emotional needs ingrained in the human nature. What follows are some suggestions for stroking those needs. First, it should be recognized that teachers have a great deal of influence on how students perceive themselves (their self-image). Therefore, it is necessary that the teacher work toward helping students build a positive self-image about themselves. People have a profound need to like themselves, to be

noticed, and to feel important. Simply giving people attention by listening to them makes people feel recognized and important. Here are some other tips on how to make people feel important and recognized: Be friendly, show interest, make comments, ask sincere questions, treat people with respect and dignity, be courteous, apologetic when necessary, use people's names when speaking to them, and be able to recall people's names and certain things about them. Health workers who help people feel important and good about themselves will find that people will be attracted to them. Because criticism does not make people feel good about themselves, teachers should only use criticism when it is absolutely necessary. Teachers should try to search out those good qualities that exist within others, and to accept people as they are. This takes tolerance and patience. It is important that teachers communicate in their words and actions that they accept people the way they are. If people dothings that the health worker does not like, he should dislike the things done, not the person. Human beings are not perfect, and therefore fail from time to time in certain things. The health worker should exhibit warmth, concern, and a desire to help others.

People want others to understand them. This requires having empathy, checking what is heard with questions, and other active listening skills. Persuasion requires listening. Teachers who take an interest in others by really listening to them will be more influential than those who do not. The reason for this is that students will, in turn, be more willing to listen better to a teacher's ideas and will be more likely to respond favorably

to implementing those ideas, if they have first been listened to.

People like to be appreciated or thanked for what they do. Health workers must look for opportunities to express appreciation for what people do (such as for acts of kindness or for participating in a community project).

Expectations of what people can do tend to influence what people, in fact, will be able to do. Thus, expectations can be self-fulfilling. This concept is known as the self-fulfilling prophesy , because people become what has been prophesied for them to become. When the health worker sees the community members as people who are capable of solving their own problems, and as possessing the needed strengths and determination to accomplish their goals, then the people will thrive and grow to their capabilities.

People tend to be influenced and do better when they are praised, encouraged, and given confidence, than when they are humiliated, and treated with impatience and indifference.

Another way to make oneself more influential is to identify oneself with one's listeners through expressing such things as past experiences, views, values, and beliefs that are similar to those of one's listeners.

A speaker with high credibility has greater chances of persuading a person to accept new attitudes and behaviors, than a speaker with low credibility. Herbert Abelson states that, "Credibility of the persuader may be less of a factor in opinion change later on than it is immediately after exposure."[14] Therefore, it will be important for the health worker to make himself

highly credible, especially after first arriving in the community, o that he will be more influential among the people.

More is needed than just an understanding into how to manage resistance, and how to affect attitude change. Once the health worker has convinced people that change is needed, it will be necessary to encourage and energize people to continue the learning process, practice new behaviors, and to work with determination to finish community projects. The health worker is now faced with a problem of how to make people feel motivated to continue the learning process. The next section will address the concept of motivation.

The central concept of psychology is "motivation." Motivation is not strictly a concern of psychologists; it is also a concern of the student of communication. The student of communication must formulate a psychology of human behavior, if he is to understand why people act the way they do, and what motivates people.

Kenneth E. Andersen states that "The science of persuasion is the science of motivation; the art of persuasion is the art of motivation."[15] Andersen makes it clear that the persuasive speaker is a person who is able to motivate his listeners to learn, and ultimately act upon what is learned. This section will help the health worker understand how to motivate their learners to continue to practice new behaviors that have been learned.

What is motivation? Kenneth E. Andersen describes motivation in this manner:

> "Broadly defined, motivation is the process of arousing, sustaining, or altering behavior. This process includes both unconsious and con-

> scious forces...Motivation is concerned with the process by which behavior is energized and directed. We must look to motivation for the energy that prompts and directs activity."[16]

Hunter states that "Motivation refers to a state of need or desire that activates the person to do something that will satisfy that need or desire." [17] Motivation - the inclination to act exists within the learner, and not within the teacher's ability to "pour in" or create motivation, so that students become enthusiastic, interested, and involved in the learning experience. The teacher must activate the motivation that already exists within learners by planning lessons that students can work on, which will help fulfil student needs, solve their problems, explore new and exciting things, and pursue their particular interests. Therefore, the teacher's responsibility is to create learning activities that will arouse the learner's curiosity and attention, maintain students interests, and allow the learners to meet their needs and solve their problems.

There are two sources of motivation, namely drive motivation and incentive motivation. Drive motivation refers to the internal source of psychological energy that drives people to fulfil particular inner urges or needs. Many of these inner urges are biological needs, such as the drive to eat food to satisfy our bodily hunger. Incentive motivation refers to the person's expectations of receiving a reward for responding in a particular way to a specific stimulus. It will be necessary for the health worker to be aware of both types of motivation.

In drive motivation the term "drive" refers to a person being moved to action by a physiological stimulus that requires the person to satisfy that need through a specific

response. The drive is activated by a persistent internal stimulus that causes a tension within the person until it is satisfied. The drive involves activity toward something, or aversion away from something. For example, the internal stimulus could be hunger that requires the person to eat food (the response) to satisfy the bodily need for food to maintain a healthy body. Drives can be either primary (natural and innate drives) or secondary (acquired drives).

People acquire "motives", patterns of behavior that allow them to satisfy their drives. The motives soon become habits. Kenneth E. Andersen believes that:

> "....the patterns of behavior acquired in dealing with innate and learned needs arepowerful forces that must be taken into account to understand the success and failure of persuasion efforts."[18]

In developing countries poverty is a serious problem. With poverty comes the deprivation of many physical and psychological needs. The deprivation of the physical need to eat food is a serious problem in developing countries. Cindi Steele defines hunger as the "weakened condition brought about by the prolonged lack of food."[19] She indicates that 24 people die from hunger each minute. Statistics differ from source to source, but the point here is that hunger is a serious problem, one that the health worker will have to deal with.

Winick and Russo (1969) [20] did research on general malnutrition to determine the difference of cell numbers within the brains of children who died of malnutrition and those that died of accidental causes. By determining the DNA content, they estimated the cell numbers in the brains. Their research showed

that a significantly smaller number of brain cells were found in malnourished children. This study shows that hunger has a direct negative effect on the development of the brain and the rest of the nervous system. Health workers will be required to look at what and where health problems are, to what extent they exist, and why they have become problems.

While health workers are concerned with meeting the long-range needs by establishing better health care practices among the people, they must not close their eyes to the short-range or immediate needs (such as food, clothing, blankets, and other basic necessities of the people). Without immediate needs met the people will not have the physiological factors of their "drive motivation" satisfied, and therefore will not be motivated to learn. Organizations that send volunteers overseas to meet long-range goals must be prepared to provide the people they are teaching with their basic physiological needs, so that they will be opened to learning.

The second type of motivation is incentive motivation. Incentive motivation refers to a person's expectations of being rewarded after giving a particular response. Incentive motivation is more commonly referred to as reinforcement. Williams and Huber state that

> "Reinforcement theory (also called contingency theory) is an approach to understanding and modifying human behavior that is based upon reinforcement principles of learning. In its most elementary form, reinforcement refers to the positive or negative consequences that follow a behavior and determine, to some extent at least, whether the behavior will be repeated."[21]

The concept of reinforcement has become an important means for behavior modification. In the classroom situation the reinforcers or rewards are the things the student earns when giving a correct verbal response or acting with an appropriate behavior.

A popular reinforcement theorist,who has contributed much to learning theory,was B. F. Skinner. B. F. Skinner points to the difference between two types of learning models, namely type S and type R. While the type S model corresponds to classical Pavlovian conditioning, the type R model corresponds to operant conditioning. Skinner considers the type R model far more important in learning. In operant conditioning a stimulus is presented that is expected to elicit a specific response, and when the desired response or behavior is given a reward follows. An attitude or behavior has been acquired or changed when after a period of time the responses for the person become relatively automatic and habitual. Thus, a response becomes "learned." Based upon the type R model, he developed "contingency management systems" to be used in educating learners. "Contingency management" refers to the ways reward systems are used.

One dominant approach to learning is the association theory, which is based upon operant conditioning. This approach analyzes behavior by looking at its components, how the components work together, and tries to formulate principles of behavior. The stimulus-response connection, reinforcement, past experiences, and history are recognized as important considerations in designing learning programs. Association theory gives an insight into how language is learned and how specific be-

havior patterns are acquired. Incentive motivation is based upon this association theory of learning. Rather than analyzing the association theory, it will probably be more helpful to zero in on operant conditioning (or reinforcement), of which the association theory is largely based upon.

First, it should be pointed out that reinforcement is considered to be a performance principle, not a learning principle. While reinforcement gives students incentives for learning, learning can occur without reinforcement. Frank Logan explains that,

> "Learning is a relatively permanent process resulting from practice and reflected in a change in performance."[22]

Learning requires practice. The use of reinforcement creates learners a desire to learn and to perform successfully in learning efforts. When a specific response follows a certain stimulus then it can be said that a response has been learned. People have reasons or purposes for learning, and so they will expect to achieve their goals. These goals are their rewards.

Reinforcement of learners does two important things. First, people are encouraged to learn when they know they will receive rewards for their successful efforts at learning. Second, reinforcement in the long-run will help to establish permanent behavioral changes within individuals.

Reinforcement theorists believe that rewards affect how well the student will perform on learning tasks. Reinforcing is a means of providing recognition and praise to students following right answers and behaviors, in order to increase the

likelihood that they will continue to respond or behave in the same way. Reinforcement acts as a motivational variable that gives people incentives for wanting to learn. When people become accustomed to responding to a certain stimulus in a certain way, the behavioral response becomes their own (it becomes learned and a change in behavior results).

Reinforcement theorists explain that learners come to expect certain rewards after giving specific responses, and the expectation of the reward becomes a source of motivation for making those responses. The rate something is learned depends upon the condition, timing of, and how attractive the reward appears. A highly attractive reward for a learner will encourage a person to learn more quickly than a reward that is not seen as being very attractive by that person.

Reinforcement theory has proven to be an important strategy for teachers to use on their students. The trick for the teacher is to find pay-off systems or rewards that the student finds attractive to exert energy towards achieving. Rewards for students include being right, being first, receiving attention, receiving praise, having privileges, having fun, feeling accepted, and receiving tangibles (money, prizes, candy, grades, etc.).

When fear or coercive motivation is extensively used initiative, loyalty, and creative problem solving to learning drastically declines. People resent those who force them to comply out of fear. Though motivating people by using fear tactics is not encouraged, it can be used as a last resort when positive forces of motivation do not work.

Listed below are seven behavioral principles that form the basis for the reinforcement model of motivation.[23]

1. Behaviors that are positively reinforced or rewarded tend to be repeated. Behaviors that are negatively reinforced or punished tend to be extinguished.

2. Rewards are more effective than punishments in motivating people to respond or act in a specific manner. Avoid using punishment as a motivational force.

3. Feedback on an individual's performance is an important form of reinforcement. A lack of feedback indicates to a person that their behavior is not being recognized and when this happens the behavior will not be repeated.

4. A reward should follow as soon as possible after the desired response or behavior is given. Behaviors tend to be learned more quickly when rewards follow immediately.

5. A distinction should be made between training needs and motivational needs. Motivation may fail, because a person needs training; training may be unsuccessful due to weak motivation.

6. Objectives that state the desired performance should be clearly defined. The behavioral objectives need to be made explicitlyand concrete, if they are to be measured and rewarded.

7. Rewards should be given for progress made toward the desired target behavior. Rewarding progress will encourage a person to continue to move in the right direction toward achieving learning goals.

For reinforcement strategies to be effective,teachers must give both short-term and long-term rewards. Short-term rewards are given frequently and immediately after the appropriate response or behavior is given. Short-term rewards guide learning, encourage students, and sustains their efforts at the learning process. For example, a teacher could praise

a student after he gives a correct answer by telling the student "Very good, that was a hard question to answer." A long-term reward is supplied at the end of a certain period of time, and is meant to encourage students to persevere in their learning efforts. An example of this would be receiving high semester grades. When students are punished by low grades, then the message is try harder next semester to get good grades.

Health workers should use reinforcers as a means of influencing them to adapt to new behavior patterns and as a means of encouraging people to learn. Rewards after accomplishments make learning furn.A list of some ways for the health worker to reinforce behavior includes:

1. Acknowledge that people are right after they give correct responses.
2. Make an effort to show attention and interest in people who have tried to implement a new idea.
3. Praising people after they have done a good job, responded correctly, or tried to act upon a new behavior.
4. Playing games for something fun to do after having completed learning tasks.
5. Give children prizes after they have learned new behavior patterns or can demonstrate an understanding of learning material.

This list only is a sample of some ways that the health worker can use reinforcement. Some creativity will be needed on the part of the health worker to come up with new ways to reinforce learners. With a knowledge of various ways to reward individuals, it will be necessary for the health worker to select the most effective rewards in a particular situation. While some rewards

like praise may be acceptable at any time, other types of rewards such as toys would be acceptable only for children.

Before leaving the concept of reinforcement, one last thing should be addressed. The "law of effect" principle in learning states that actions that lead to satisfaction or success are more likely to be repeated than those actions causing states of discomfort or failure. On the basis of this principle rests the idea that health workers should help people have successful experiences at the innovation they are trying to implement, so that the people will continue to work on a project, to act according to certain behaviors, or to uphold certain attitudes. If community members fail in their efforts they will lose faith and abandon their goals. Reaching goals requires people to succeed at a series of steps. If community members are frustrated by failures in these steps to reach their goals, then they will lose faith and abandon their goals. Thus, the success or failure of experience itself will influence whether people continue their efforts.

It is crucial that the health worker help people to increase their successes and to avoid failure. Furthermore, health workers should help people to understand that goals take time to achieve, and that their continual efforts at each step are necessary for reaching the final goal.

In conclusion, this section on educational psychology began by explaining the importance of helping people meet their most basic needs before teaching health care concepts. It will be critical that the health team work with clearly stated goals and

objectives, so that they know exactly what they are expected to accomplish. After some tips were given on how to deal with people's resistance to change, Heider's balance theory was presented as a means of showing how the health worker could influence people's attitudes. Some helpful suggestions were given on how to make oneself more influential among others. The end of this section focused on reinforcement as a powerful force for making people feel motivated to learn and to act upon what they have learned.

Footnotes to Part II

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Part III: The Learning Process

The purpose of this section on the learning process is to prepare the health worker for teaching. This section will begin by explaining the importance of coming to know people through visiting them, so that the health worker will be prepared to address their needs in teaching. Some tips to keep in mind when conducting a family visit will be offered. Then, the need to establish a positive learning climate will be discussed. After this, five suggestions will be given for the health worker to keep in mind about the learning process. Also, the health worker will be familiarized with how to show people a remedy is harmful without offending them. Finally, four teaching styles will be suggested for the health worker to use in helping people understand new ideas.

Phyllis Ensor and Richard K. Means[1] write that:

> "Effective teaching requires a deep understanding of human nature, individual behavior, group interaction, and the phenomenon of learning itself."

Before and during the teaching process the health worker must be tuned into the people's cultural backgrounds, needs, customs, values, beliefs, habits, and how people work together. It will be necessary for the health worker to visit individuals and families, so he can get to know them and address their own particular needs. These visits will allow the health worker and the community members to develop a better relationship with one another.

The health worker can go to people's homes, fields, schools, and other gathering places to visit with people. In the health

worker's conversations with villagers he can learn of their problems, customs, hopes, joys, beliefs, fears, values, and habits. The health worker during these visits may have other goals in mind to achieve other than for coming to know people, and of building relationships with them. Other goals could include:

1. To collect specific information
2. To provide people with information
3. To offer encouragement
4. To educate
5. To offer reassurance
6. To examine some of the things the individual or family does that promotes poor and good health
7. To stimulate people to take action

K. A. Pisharoti[2] points out several things a health worker should keep in mind during the actual visitation of an individual or family; these points include:

A. Approach to the individual or family

1. Introduce yourself and greet people according to their local customs.

2. The first step in the visitation is to establish rapport with people. With rapport established people will be more willing to accept the health worker and his ideas. Building rapport can be accomplished when the health worker reveals some things he knows about the family, talks about what they are interested in, reveals a willingness to help them, praises them for their accomplishments, and participates in some common activity with the family.

3. The health worker should judge how long he should stay by the existing circumstances.

B. During the visitation

1. Be aware of the emotional and social forces at work during the conversation, so that it will be possible to use these forces to assist in promoting your ideas.

2. Encourage people to talk, while you actively listen to them.

3. Create situations and opportunities where people will be helped to make decisions on their own, rather than you making decisions for them.

4. Try to satisfy people's basic ego needs, so that they will be more willing to openly listen and discuss your ideas, and to in turn make good decisions.

5. Try to correctly interpret the meaning of people's nonverbal actions.

6. Avoid sermonizing, moralizing, and rendering judgments.

7. Gain people's confidence by listening to their problems, showing a sincere interest in them, and assist them in addressing their problems.

8. Praise people's efforts for trying new ideas, and for their own good ideas and practices.

9. Do not suggest too many ideas during the course of a single discussion or visit.

10. Talk in simple language by using terminology that people can understand.

11. Make sure the information you give is clear and correct.

12. Demonstrate as ameans of teaching whenever it will facilitate a better understanding of learning material.

13. Before people read any literature you give them, explain what it is about.

14. Do not argue with others.

15. Have faith in people's capacity to solve their own problems.

16. Never make promises that are not in your power to control the outcome.

17. Help people to feel at ease, so that they will share their concerns, needs, fears, hopes, and problems with you.

18. Before leaving make plans for another visit, if you expect to return.

Hopefully this list has given the health worker some tips on how to conduct an effective visitation with people in the community. Through this time of visiting people the health worker can find out much about the people whom he will be teaching and healing. Once an understanding is achieved into people's needs, problems, beliefs, fears, hopes, and habits, then the health worker will be prepared to address these factors when teaching.

Within the learning situation, whether it be during home visits or at actual class lessons, the health worker must create a positive learning climate, if he expects to influence changes in people's health behaviors. The next section will address how a health worker should create a positive learning climate, and will look at some characteristics to be avoided that contribute to a negative learning climate.

It is critical that the health worker make people's experience at learning about health care as pleasant as possible. The reason for this is that people who have an unpleasant experience with health lessons will either be absent from many future classes or will drop out all together. When people have a pleasant experience they will be eager to return and learn more about health care at other future classes. In order to create a pleasant experience for learners it will be necessary for the health worker to establsih a positive learning climate (rather than a negative learning climate).

The term "learning climate" is used to explain the psychological conditions set by the teacher-student interaction within the environment of the classroom situation.

A positive learning climate facilitates student learning, while a negative learning climate squelches students' potential to learn. The learning climate is created by both verbal and nonverbal communication by the teacher and students. The teacher's responsibility is to set the tone for a positive learning climate, so that students will feel free to participate.

By simplifying the differences between a positive and negative learning climate in chart form will help the health worker understand the negative climate characteristics to avoid, and the positive learning climate characteristics to use.[3 4]

Positive learning climate characteristics to be used by the health worker	Negative larning climate characteristics that the health worker should avoid using
1. Expressions that give: a. Support b. Approval c. Encouragement d. Acceptance e. Praise f. Enthusiasm g. High regard	1. Expressions that convey: a. Aloofness b. Coldness c. Low regard d. Indifference e. Inattentiveness f. Disinterest g. Dissatisfaction h. Punishment i. Criticism j. Discouragement
2. An atmosphere of: a. Mutual respect b. Friendship c. Informal d. Supportiveness e. Non-threatening	2. An atmosphere where the teacher: a. Dominates talk b. Sermonizes c. Lectures d. Does not ask questions
3. Patiently listens to students, and shows warmth.	3. Does not care about what students have to say.
4. Helps students who have difficulty learning something or with problems.	4. Expresses little or no concern for students.
5. Shows a liking for students.	

Positive learning climate characteristics to be used by the health worker	Negative learning climate characteristics that the health worker should avoid using
6. Is responsive to students by acknowledging their responses, raised hands, or puzzled looks. Responds with accepting comments.	5. Ignores students' responses, or acknowledges them with comments of rejection.
7. By involving students in discussion the teacher will encourage the students to participate and will make them feel an important part of the learning process. To do this the teacher should use verbal statements that bring people into discussion.	6. Conditions that cause students to feel: a. Anxiety b. Fear c. Tension d. Distress e. Worry f. Anticipation of the unpleasant g. Frustration h. Humiliation i. Embarrassment m. Lowering of students' self-respect and self-esteem n. Shaming o. Making students feel self-conscious p. Degrading
8. Helps students to be successful at their learning efforts by providing learning material that is not unreasonably difficult.	
9. Gives students feedback after completing tasks, so that they know where they are and where they are expected to go.	
10. Students should be aware of the goals and objectives, and all learning material should be directed toward achieving these objectives and goals.	
12. Treat each student with respect.	
13. Allow students some choice in selecting and sequencing learning material.	
14. Relate new information being taught to the old or familiar information within the students' experiences.	

Hopefully this list has helped the health worker recognize the characteristics of the effective teacher who sets the positive learning climate, as well as the characteristics of the ineffective teacher who sets the negative learning climate. With this knowledge the health worker can consciously choose those behaviors that create a positive learning climate, while refraining from those behaviors that create a negative learning climate.

What follows are some important suggestions for health workers to keep in mind about the learning process. First, learning is goal-directed and problem-centered. In order for people to learn, learning material must be directed toward helping people meet their goals and solving their problems. If learning material is not related to people's goals and problems, then they will have no incentive for learning. Adults strive to satisfy their needs, solve their problems, and reach their goals. Therefore, learning should have relevance and value to the learner. When people believe that new information or practices will be valuable to them, they will desire to learn. The health worker's responsibility is to help people reflect on what their needs and problems are, and to help them find ways to satisfy their needs and problems.

To accomplish goals, overcome problems, and to make needed changes within the community everyone in the community must become committed and involved by working together to make the needed changes and improvements within the village. Big changes cannot occur until all the villagers are ready to cooperate with each other and take the responsibility upon

themselves to make their community a healthier place to live.

Because the learning experience is suppose to help people meet their goals and solve their problems, learners should be involved in planning, implementing, and evaluating what they are to learn.

Secondly, health workers must realize that they are not suppose to spoon feed people knowledge on health care, but to help people discover that knowledge for themselves. Through discussion people (including the health workers) can share their knowledge, ideas, experiences, and skills with each other, so that together they can make these new discoveries for themselves. David Werner[5] explains that:

> "People do not learn much from what they are told. They learn from what they think, feel, discuss, see and do together.
> So the good teacher does not sit behind a desk and talk <u>at</u> people. He talks and works <u>with</u> them."

Thirdly, people learn best when they are able to practice what is taught. Learning is an active process that requires practice, rather than being a passive absorption of ideas. Research from educational psychologists shows that real learning occurs when the learner is actively involved in the learning situation in some way.[6] Wilbur[6] states that:

> "Retention depends to a large extent upon continued involvement or use of the knowledge...An adult who is taught about health will retain the information, skill, or attitude if he uses it."

It will be much more useful for learners to have the health worker demonstrate health skills to them and to give them a chance to practice these new skills, than it would be for the health worker to simply tell them about the skill.

By practicing these skills learners will be better able to recall how to use these skills in the future.

Fourthly, using repetition is important for helping learners to remember concepts and for getting them to change their behaviors. Asingle message or the use of a single channel to communicate a message rarely moves people to change an action. Therefore, a teacher must repeat a message several times and utilize several different channels (or teaching methods) to communicate a message before people can understand concepts or be ready to act in some way.

Fifthly, the health worker will need to help people develop self-confidence, so that they will have the power to change behavior patterns, to accomplish tasks, and to develop new skills. The health worker will have to point out to people the and skills they do have. People may not try to change things they do not like, because they think they are ignorant and powerless.

The previous five points should give some insight into some important factors for the health worker to consider when teaching people.

Up to this point, the importance of getting to know villagers, the need to set a positive learning climate, and five suggestions for the health worker to keep in mind to make the learning process more effective have been discussed. Next, the health worker must be familiarized with how to help people to critically look at their customs and beliefs. By getting people to do this, the health worker will help people to recognize whether remedies are harmful or helpful.

Health workers may wrongly look down upon people's customs and beliefs, see no wrong in them, or ignore them completely. The health worker should not reject or ignore people's traditions, but should build upon them. If a health worker looks down on people's customs and beliefs, and tells them that their remedies for illness are wrong, then they will feel ashamed of their traditions. Health personnel should not disrespect, offend, or shame people for the ways they do things. The health worker's role is not to go into a country and tell people how to change all their practices for better ways of treatment. Rather, the health worker should accept people as they are, and not be judgmental. The food in traditional treatment methods should be emphasized. It does no good to tell people that their ways of treatment are wrong or bad. The health worker's job is to help people look carefully and critically at their traditional health practices. People should be helped to understand, respect, and build upon their own healthy cultural traditions.

Through group discussion group discussions and through individual contacts the health worker can guide people to discuss for themselves what is harmful and what is helpful, what remedies are beneficial and which are risky to use, the strengths and weaknesses of using old and new ways of treatment, and what causes people to become sick and what prevents sickness. The people's findings will help them to discover what harmful practices to avoid and what helpful practices to preserve. When the health worker assists people in recognizing the value of their remedies they will gain confidence in their own knowledge, experience, and ability to meet their own health needs themselves.

The following three points give some suggestions to the health worker on how to show that a remedy is harmful without offending them, ridiculing them, or showing disrespect for their traditions[7]:

1. Avoid being negative or critical by telling people what they are doing wrong. Be positive by telling people what they are doing right, and help them find out for themselves what they are doing wrong.

2. Look for what is true or beneficial about a remedy even if the remedy is more harmful than helpful, and then assist people in developing new insights about the harmful effects of a remdy.

3. Help people explore the reasons for how their health habits and remedies developed. Then, the health worker must help people recognize the need to weigh the risks or disadvantages against the benefits or advantages of their health practices in both traditional and modern medicine.

The first example will illustrate point number one from the above list. In this example, the health worker tries to help people to first look at what is right in people's own traditions by such statements as "You are right about thinking that a sunken soft spot on a baby's head is not good" to a mother whose child has diarrhea. Then, the health worker can ask the mother questions about what she already knows and has observed about the child's illness. For instance, he might ask the mother, "Have you observed any other sunken areas on the baby's body?"

This example illustrates how the health worker helps people to discover for themselves the reasons for sickness and what are harmful remedies. When people are able to make discoveries for themselves on why their perceptions of illness or ways of treatment are wrong, they will come to understand and accept the reasons they come to as right. In this example

the mother will discover for herself that a lack of liquid caused the soft spot to sink in her child's head. By letting the mother discover for herself that the sunken soft spot is a result of diarrhea and not a cause of it, she will be open to taking advice from the health worker on a new way of treating diarrhea.

Example two reflects upon points two and three in the list on the preceding page. In this example a health worker must discourage people from using a harmful remedy without offending them. The harmful remedy for the sake of this example will be a Mexican remedy for fungus infection of the scalp, which involves completely shaving the person's head and having it covered with cow manure and then after twenty-four hours of having the cow manure on, the scalp is to be washed off with cow urine. It is difficult to see any good in such a disgusting remedy, however the perceptive health worker could mention beneficial aspects of the remedy by pointing to its scientific value by saying that "Both manure and urine contain properties that help fight fungus infections." After pointing out the benefits the health worker should then explain that this remedy is very likely to cause tetanus and other serious bacterial infections.

Though a health worker will discourage the use of harmful remedies, he will not directly tell people that a remedy is bad. He will help people to strengthen their respect for their traditions by mentioning some of the benefits of the remedy, Will help them to consider the risks of using a harmful remedy,

and will explain why a remedy may be more harmful than helpful. People must be told that in both traditional and modern medicine the potential benefits must be weighed against the potential harm of a remedy to determine if it should be used or not. By weighing the possible benefits with the possible harm caused by the manure and urine treatment, in the preceding example, the health worker tries to bring people to the conclusion that it would be safer not using this remedy.

The two preceding examples should have given an insight into how to show people that a remedy is harmful without offending them, ridiculing them, or showing disrespect for their traditions.

Before people will accept new ideas, they need to know the effect it will have upon them personally. Described below are four teaching styles that the health worker can use to help people understand new ideas in terms of what is familiar to them[8]:

The first teaching technique for helping people to understand a new idea is called the "association of ideas", and requires the health worker to compare a new idea to something people already know about or are familiar with. For example, a health worker, who wishes to show that flies carry germs from cow dung to food to make people sick, would compare this with how people can step in cow dung and carry it into their homes on the bottom of their feet. The advantages to this method are that it gives new ideas greater meaning and gets people to look at new ideas in light of their own experiences. This teaching technique can utilize many different teaching methods such as

stories, role plays, and puppet shows.

The second teaching technique for helping people understand new ideas is to "present ideas through real situations", This entails letting people see things for themselves. When people are able to observe new ideas being carried out they will be more willing to implement the new ideas. A health worker who wishes to persuade people to use fertilizer on their land might, for example, let people experience "seeing" big and healthy crops grow on a fertilized demonstration plot of land.

The third teaching technique for helping people understand new ideas is to "choose an appropriate time". The health worker should introduce new ideas as they relate to the problems that people are experiencing. People will be more willing to listen to new ideas if they are presented to them at times when the new idea or suggestion relates to solving current problems that they are experiencing. An example of this would be when a health worker advises people not to put kerosene in soft-drink bottles after a child from the community has just died from drinking kerosene in a coke bottle.

The fourth teaching technique is an "on-the-spot survey". A five-minute survey may be conducted among group members to help them understand the effectiveness of new ways of doing things. For example, a group of farmers who raise chickens may not understand the value in vaccinating them. The health worker could conduct a survey among the farmers present to find out if vaccinations of chickens have been worthwhile. Each farmer would report on how many of his chickens died during a certain

time period, and would indicate whether the chickens were vaccinated or not. The results would be written down, so the group of farmers can compare the results. An "on-the-spot survey" among learners helps them learn from the evidence of their own experiences.

These four teaching styles should give the health worker some insight on how to help people understand new ideas.

In conclusion, the purpose of this section on the learning process should prepare the health worker for teaching. This section has offered some suggestions for conducting a family visit, tips on creating a positive learning climate, five ideas for facilitating the learning process, three suggestions on how to show people a remedy is harmful, and four teaching styles to help people understand new ideas.

Footnotes to Part III

1. Phyllis Ensor and Richard K. Means, Instructor's Resource and Methods Handbook for Health Education (Boston: Allyn and Bacon, Inc., 1973), p. 13.

2. K. A. Pisharoti, Guide to the Integration of Health Education in Environmental Health Programmes (Geneva: World Health Organization, 1975), pp. 71 and 72.

3. Russell D. Robinson, Ph.D., An Introduction to Helping Adults Learn and Change (Printed in the U.S.A., 1987), pp. 42 and 45.

4. John R. Verduin, Jr., Harry G. Miller, and Charles E. Greer, Adults Teaching Adults: Principles and Strategies (Austin, Texas: Learning Concepts, 1977), pp. 63 and 64.

5. David Werner, Where There Is No Doctor: A Village Health Care Handbook, 8th rev. ed. (Palo Alto, Calif.: The Hesperian Foundation, 1982), p. W-25.

6. Muriel Bliss Wilbur, M.P.H., Ph.D., Educational Tools for Health Personnel (New York: The Macmillan Co., 1968), p. 10.

7. David Werner and Bill Bower, Helping Health Workers Learn: A Book of Methods, Aids, and Ideas for Instructors at the Village Level (Palo Alto, Calif.: The Hesperian Foundation, 1982), p. 7-8.

8. Ibid., pp. 7-11 to 7-13.

Part IV: Teaching Methods

This section on teaching methods will begin by addressing the purpose of using teaching techniques and will give some general guidelines to consider when using them. After this, a variety of teaching methods and aids will be described.

Teaching methodology refers to the methods or techniques used by teachers to involve students in the learning process. Richard K. Means[1] explains that teaching methods are the means (and not the end) to learning:

> "Thus, it should be emphasized that teaching methods, procedures, and techniques are not an end in themselves, but rather are a means by which students can be assisted to solve their individual and social problems. They involve the planning and arrangement of experiences which facilitate the complex process known as learning."

The first guideline is that teaching techniques should be creative and original. Richard Loya[2] explains that:

> "In order for health teaching to be successful, it is of utmost importance that the methods used be creative and original in every possible way. By doing this the subject will be more interesting to the students and enhance the opportunities for behavior change."

The second guideline is to make the learning experience enjoyable and fun. To make people feel enthusiastic and excited about learning, it will be necessary to make the learning experience as enjoyable and as fun as possible.

The third guideline is to use teaching techniques that will get people emotionally involved in the learning process. When learners become emotionally involved with the learning material, then they will be ready to learn and to make needed changes in their behavior. Some teaching methods will be better than others in arousing emotion.

The fourth guideline is that people "learn by doing". To "learn by doing" refers to the learner being actively involved in learning activities, such as by practicing a new skill. It will be critical that the learner be actively involved, rather than to remain passive in the learning process. The more opportunities there are for participating, the more learning that is likely to occur. When learning occurs changes in attitudes and behavior patterns will result.

The fifth guideline is to use a variety of teaching methods. The teaching technique used will depend upon the purpose of the class lesson. There is no one best teaching technique, but the worst teaching method is the one that is always used. Russell D. Robinson[3] in referring to teaching methods states that "Variety is the spice of the learning situation." Many teaching techniques often work best when used with other teaching techniques.

The sixth guideline is that learning activities should involve students using more than one of their five senses. C. M. Charles[4] explains that:

> "Sensory involvement increases retention. When possible see that students use more than one of their five senses in what they learn. Generally, the more of their five senses the individuals use in learning, the better they remember. If they see and hear something, they will remember better than if they only see or hear it. If they can touch it, they will remember it still better."

The health worker should take into consideration these six general guidelines on teaching techniques when preparing class lessons. The importance of making learning an enjoyable and interesting experience cannot be over emphasized, nor can the idea that learners must participate actively in the learning

experiences for learning to take place. Also, the health worker must remember to use a variety of teaching techniques, in order to make the learning experience fun and to maintain the learners interest in what is being taught. Therefore, a great deal of the health worker's success in changing people's behavior is dependent upon his ability to prepare a variety of teaching techniques that will draw the people into the learning process. The following section will look at a variety of teaching techniques that the health worker can use.

Story Telling

The purpose of telling stories is to put ideas across in an easy to understand way. It helps people to see how their traditional ways relate to new ideas. Stories allow people to identify with a character in the story who experiences a problem similar to their own problems. The character in the story may try to find a solution to his problems. Therefore, stories become a means of helping people find solutions to their problems. While, in some stories the character may reach a solution to his problem, at other times a problem may be presented without any solutions offered. In the later case the learners are left with the job of finding the solution. In either case, the story becomes a means of getting people to start discussing new ways of solving their problems. By discussing their problems with each other no one individual is embarrassed by being put on the spot to address problems they do not have the answers for themselves.

Stories should always show respect for people's traditions. The health worker's job will be to build upon people's traditions

by using them as a basis for introducing new ideas. Bower and Werner[5] advise health workers to make sure that:

> "...stories are constructed to include the traditional knowledge or belief and to move, through the means of the story, to an action which will help solve the problem."

Pictures that accompany stories make a nice addition to story telling. Bower and Werner[6] explain that using pictures with story telling is helpful for these four reasons:

1. Pictures allow learners to 'see' what is going on in the story.

2. A series of pictures can help remind the health worker on each point to mention when telling the story.

3. Pictures are useful for helping people to tell a story from their own experiences.

4. The health worker can have the learners explain what is happening in each of the pictures. In this way, people can discover for themselves the health message and to in turn tell it to the health worker.

The different types of stories that can be told will be listed below[7]:

1. Parables teach a lesson, which is stated at the end of the story. There are three types of parables:

   a. Fables are make-believe stories involving animals.
   b. Tales are imaginary stories about people.
   c. True stories are stories of events that really took place.

2. Case studies are stories that give a detailed description of the background, circumstances, relationships, and problems in a particular situation. After the case is presented, the learners discuss the problems and try to come up with solutions for the people in the case.

   Case studies help people think about local problems. By first talking about the problems in a case study that involves imaginary or real but unknown people, the learners will not be so reluctant about talking about their own problems and trying to find solutions for them.

3. Stories that students help to write may be used with literate students. The learner reads or hears the first part of a story, and then completes the story by writing down how the problem can be resolved. When people are put into a position to solve problems in a story that is related to their problems they will tend to draw a connection between how the story relates to their own situation. This story telling technique provides learners with an opportunity to try to solve their own problems.

4. Stories told by the group are stories that each member in a group helps to tell. Each member first tries to solve the problem posed by the preceding person, and then creates another problem to pass on to the next person. This story form is useful for getting everyone to think and become involved in the story.

5. Analogies or comparisons are a way of helping people to understand new ideas by comparing what is familiar to the new idea.

6. Acting out stories involves each learner taking on an identity of one of the characters in the story and acting out the role of that character. This story form goes through a series of steps that will be listed below:

   Step 1: A story with a health message is told by the health worker.
   Step 2: One of the learners repeats the story as well as he is able to remember it.
   Step 3: The other learners comment on how well the student (from step 2) retold the story, what details were left out, and how the story was changed.
   Step 4: All the learners act out the story.
   Step 5: The learners ask each other questions about the story, and they may even make up stories about the main health message.

   This repetitive process in this story telling technique helps people to remember the health message quite well.

The health worker will have to choose the type of story that is most appropriate for the particular learning situation.

Many of the proceeding teaching methods present teaching aids that can be utilized with story telling.

Flip Charts

Flip charts are joined pieces of paper that are attached from the top. Other forms of flip charts include, having a long roll of paper rolled up on a stick, and having papers linked in a chain fashion (with each side of each page attached to another side of another page). Any of these flip chart forms will help keep the pictures in the right order. The pictures on the flip chart can be used to tell stories or to teach skills step-by-step.

Flannel Board

A flannel board is a display board where pictures and signs are placed and can be easily removed. Flannel, sandpaper, or soft cloth is glued to the back of a picture to make it stick to the flannel board. Pictures may be cutout from magazines or drawn. Pictures and signs on the flannel board can be easily and quickly re-organized. The flannel board may be used for presenting information, telling stories, showing a skill, presenting a concept, and demonstrating a procedure step-by-step.

Posters

Richard K. Means[8] says this about posters:

> "A poster is a pictorial or symbolic visual representation designed to catch and hold the observer's attention long enough to implant a significant message or idea. It is intended to convey a single easily grasped idea in an emphatic fashion. It stresses bold design, forceful color, clear organization, and careful word selection."

By using large sheets of paper or white plastic, or old plastic mattress covers the health worker can make large posters. The advantages of using thin sheets of white plastic and old plastic mattress covers (rather than paper) for posters is that it can be folded, easily carried, and washed when a water proof marker is used.

Flash Cards

Pictures are drawn and messages written on individual flash cards. A series of flash cards may be used to tell stories or to teach skills step by step. The advantage to flash cards over flip charts is that the cards can be rearranged to tell different stories or to teach different ideas. Flash cards offer an excellent means for teaching basic health care concepts to the illiterate, and offer a fun way to learn for any student when used as a game. There are a variety of flash card games that can be used to help students learn, including those with matching cards in one way or another, and guessing the right answers to questions on the flash cards. A game might involve students placing flash cards showing causes, problems, signs, treatment and prevention of a particular illness into groups. For example, all flash cards showing a cause for a specific illness would be put into the group labeled "causes".

Comics and Photonovels

Comics and photonovels are stories that are accompanied by pictures and statements about what is going on in the picture or

about what people in the picture are saying. Stories on health themes can be put into a comic strip (by utilizing drawings) or into photonovels (by utilizing photographs) by either the health worker or learner. If a camera is available pictures of local people can be taken, and a photonovel made with the local people as characters in the story. To make stories in comic strips and photonovels more interesting and to seem more real the characters should be given names. For instance, it is better to say John than to say the boy. A health worker could make a comic strip that shows how people are catching a contagious illness. After presenting the comic strip to the learners, they can discuss why people are catching the illness and how it can be stopped from spreading. After the learners understand why people are catching the illnes and how it can be stopped, they could draw their own comic strips about a common problem in their community.

Color Slides and Filmstrips

Filmstrips and slides are used to project pictures onto a screen, sheet, or wall. Battery-operated projectors are available for use in areas with no electricity. Color slides and film strips offer an excellent means of informing people on a variety of health topics and can even be used to demonstrate health skills. These two teaching aids can present stories too.

Models and Demonstrations

A model is a three-dimensional replica of a real object. Although the model can be smaller than the real object, most of the other characteristics between the two are the same. For instance, a health worker could use a doll to demonstrate a variety of health care practices, such as when demonstrating how to properly cut the umbilical cord of a baby. In this case, a baby-doll with a cloth cord to the belly could be made as a model for demonstrating how to properly cut the umbilical cord of a new born baby.

Puppet Shows

Puppets are small figures made from cloth or paper that are pulled down over the hand. The puppet receives its ability to move by the movement of someone's hand, and the ability to talk by the voice of the person manipulating the puppet. The person handling the puppet usually is behind some type of barrier, so that only the puppet can be seen.

Puppets are an excellent means of teaching basic health care concepts, especially for embarrassing topics. Harold R. Oaks[9] explains this about puppets:

> "They can talk about things that we might not like other people to say (like why we should use the toilet or why something is not good for us to eat)."

Puppet shows can present stories, and puppets can ask people questions to get them thinking and talking about new ideas.

Oaks[9] says that puppets have many uses for instruction, he says:

> "They can give information or instruction; represent an extreme or negative trait (like Dirty Mary); create imaginative situations (like the germ, or a talking tooth that likes to be cleaned); be a control agent (like Carrie Cleanup who tells us about and checks up on our cleaning), and they can give us a new view of situations (by allowing us to role play another person)."

Some advantages for using puppets include[10]:

1. They are inexpensive.
2. They hold the attention of both adults and children.
3. Puppets provide people with logical reasons on why they should change their behavior.
4. They are easy to transport.
5. Puppets are easy to operate.
6. Puppet shows are fun to watch.
7. Puppets offer person-to-person contact.

Songs

Songs are musical compositions that combine the rhythmic and melodic tones in such a way as to create an authentically appealing sound. When songs are used for instructional purposes they are usually kept simple in structural form and utilized most of the time to teach young children. Richard K. Means[11] in explaining about songs states that:

> "They have strong motivational value in learning due to their emotional impact and expression of feeling."

Role Playing

Role playing involves learners acting out a set of circumstances without previous rehearsal and without reading a written script. Role players take on an identity of another person, and then they speak and act according to how their identity would or should. Role playing is one of the best ways to learn new skills, because it involves the learners practicing what they have been taught. Some advantages for using role playing are listed below:

1. It provides a lively, realistic way for learners to practice skills.
2. It is useful for teaching people who are more familiar with learning through life experiences, than from reading books. Role playing is a good technique to use for the illiterate.
3. It gives people an opportunity to try to solve problems presented in the role play.
4. It helps people to develop practical skills, social skills, teaching skills, and social awareness.

Discussion

Richard K. Means defines a discussion in this way:

> "A discussion involves the verbal interaction of a number of individuals who perceive one another as participants in a common activity. It is a socializing procedure designed to utilize cooperative oral participation toward the resolution of a particular problem or question." [12]

The health worker's role in the discussion will be to guide people's thinking and talking into a purposeful and organized discussion. Discussions provide an opportunity for people to talk about their health needs and problems, and to try to find solutions for them. Through discussions people can share their own ideas on what their

problems really are, the causes of their problems, and how they can solve their problems.

In conclusion, this section on teaching methods offered six guidelines for the use of teaching techniques. These guidelines indicated that the teaching methods used should:

1. Be creative and original
2. Make learning fun and enjoyable
3. Get learners emotionally involved in the learning process
4. Allow people to "learn by doing"
5. Use a variety of teaching techniques
6. Involve students using more than one of their five senses

After these guidelines were presented a number of teaching techniques were given. These teaching methods and aids included:

1. Story Telling
2. Flip Charts
3. Flannel Boards
4. Posters
5. Flash Cards
6. Comic Strips and Photonovels
7. Color Slides and Filmstrips
8. Models and Demonstrations
9. Puppet Shows
10. Songs
11. Role Playing
12. Discussions

Footnotes to Part IV

1. Richard K. Means, Methodology in Education (Columbus, Ohio: Charles E. Merrill Publishing Co., 1968), p. 8.

2. Richard Loya, eds., Health Education Teaching Ideas: Secondary (Reston, Virginia: American Alliance for Health, Physical Education, Recreation, and Dance, 1984), p.43.

3. Russell D. Robinson, Ph.D., An Introduction to Helping Adults Learn and Change (Printed in the U.S.A., 1987), p. 89.

4. C. M. Charles, Ph.D., Educational psychology: The instructional endeavor, 2nd. ed. (Saint Louis: The C. V. Mosby Co., 1976), p. 421.

5. David Werner and Bill Bower, Helping Health Workers Learn: A Book of Methods, Aids, and Ideas for the Instructors at the Village Level (Palo Alto, Calif.: The Hesperian Foundation, 1982), p. 13-5.

6. Ibid., p. 13-10.

7. Ibid., pp. 13-7 to 13-9.

8. Richard K. Means, Methodology in Education (Columbus, Ohio: Charles E. Merrill Publishing Co., 1968), p. 81.

9. Harold R. Oaks, Puppets as an Intercultural Communication Tool (Chicago, Ill.: ERIC Document Reproduction Service, ED 163 552, 1977), p. 2.

10. Ibid., pp. 1 and 2.

11. Richard K. Means, Methodology in Education (Columbus, Ohio: Charles E. Merrill Publishing Co., 1968), p. 39.

12. Ibid., pp. 24-25.

Part V: Evaluations

This part gives an overview of the evaluation process by answering why evaluations are given, what they measure the effectiveness of, and when and how to give them. This section ends with a sample checklist for helping health workers evaluate their teaching effectiveness.

Basically, evaluations are used to provide feedback on the teacher's effectiveness at helping people to learn and on the students' progress in attaining new knowledge and skills. Dr. Beryl Roberts[1] gives an excellent summary of the reasons for evaluating health education programs. His ideas are listed below:

Reasons for evaluations

1. To improve the program
2. To help staff plan for future programs
3. To gain knowledge into what makes health education programs more effective
4. To achieve operational efficiency
5. To measure program effectiveness, in order to obtain:
   a. Administrative support
   b. Community support
   c. Financial support
6. For motivational purposes, in order to give staff and volunteers a sense of satisfaction and success

The four basic elements to be evaluated are the[2]:

1. Program design - Evaluates how appropriate the program design was for meeting the desired goals.

2. Teacher - Evaluates the teacher's effectiveness at putting ideas across, the teacher's teaching style, and the adequacy of the instructional resources used.

3. Students - Evaluates the extent that knowledge, skills, and attitudes were learned.

4. Results - Evaluates whether or not changes in the learners behavior resulted after the instruction is finished, and if so to what extent.

Evaluations should be a two-way process involving both the teacher and the students. By involving learners in the evaluation process they will perceive themselves as being an important part of making the program successful, and they will feel respected, valued, and as equals with their teacher. Evaluations done exclusively by the teacher will make people feel threatened by the teacher's authority to judge them. Evaluations among the teacher and students can be carried out in a simple and friendly way.

It is essential that evaluations be done with constructive criticism, in order to reduce the likelihood that anyone will be offended. It is difficult for people to accept criticism. Here are three tips for giving constructive criticism to people[3]:

1. Comment on both the good and bad.
2. Mention the good comments before mentioning the bad comments.
3. For every wrong that is criticized three good things a person does should be pointed out.

In regards to time, evaluations can be classified into four categories[4]:

1. Continual Evaluations - This type of evaluation takes place throughout a project, activity, or program. The health worker should use continuous evaluation. After each class the health worker can ask people what they learned, on what they liked about the class, and how the class could be improved. The health worker could also ask people to ask questions to each other on what they learned and how they expect to apply what they learned to their own lives.

   By involving people in the evaluation process health teachers can get feedback on how effective their teaching was, so that they will know what the learners did not understand very well. In this way, the health worker can come to understand how to improve his teaching methods and style of teaching.

2. Periodic Evaluations - This type of evaluation takes place after a specified time period during a project, activity, or program. These "check-up" evaluations look at how well the overall progress of the program is coming.

   Periodic evaluations could include weekly or monthly evaluations on a community project, activity, or program. Periodic evaluations could also include self-evaluations by a teacher himself, evaluations of a teacher by another teacher who acts as a silent observer while the other instructor teaches, and evaluations by a group of teachers who meet together periodically to discuss their problems and how they can improve their teaching effectiveness.

3. Final Evaluations - This type of evaluation takes place at the end of a project, activity, or program. When a specified activity has been completed, all those involved can gather together to evaluate the program as a whole. Discussion can focus upon the strengths and weakenesses of the program, and on how the activity can be improved the next time the program is carried out.

   Final evaluations could include evaluations done after a project is completed, at the end of teaching a particular segment of ideas, right before learners graduate from the program, or right before the health worker leaves the community.

4. Follow-up Evaluations - Takes place after the results or effects of a project, activity, or program can be observed. Follow-up evaluations usually take place after a given time period after the project, activity, or program ends. For the overseas volunteer health worker, follow-up evaluations will be the most difficult to measure, since the results or effects of their efforts can be measured after they leave a community for a given period of time. If a health worker goes to teach in another community, then the health worker can return for a visit to that village to do a follow-up evaluation. In the case when a volunteer returns home from a program, then other health workers can do follow-up evaluations.

   Follow-up evaluations will be critical to the continual support of donors to the organization's work. Through follow-up evaluations, the organization will be able to account for its accomplishments and show where its money is being spent to the public. Besides this, follow-up evaluations will enable the organization to better train future volunteers and improve the program as a whole.

The key to finding out if class lessons have achieved the original goals set in the lesson planning stage is for the teacher to set clearly stated behavioral objectives to be accomplished for every class. The learning or behavioral objectives indicate the desired behavioral outcomes to be met by the students. To determine if the behavioral objectives have been achieved, the teacher must compare them with the behavior of the learners that results after the learning experience is completed. If the learning objectives have been achieved, then the learners are showing progress in attaining new knowledge and skills, and the teacher's effectiveness becomes apparent.

The following checklist can assist health workers in evaluating their teaching effectiveness.

Checklist for Evaluating Teaching[5]

Does the health worker:

1. Show enthusiasm?
2. Relate what is being taught to the experiences of the learners?
3. Encourage participation by asking questions and facilitating group discussion?
4. Use a variety of teaching aids?
5. Use creative teaching aids?
6. Write and speak clearly?
7. Avoid using terminology that people do not understand?
8. Use teaching methods that are familiar to people's local learning traditions?
9. Illustrate ideas and new ways of doing things by using examples and telling stories?
10. Allow time for practicing new skills?

11. Treat people as friends and as equals?

12. Make sure that everyone is given the chance to speak their views in discussions?

13. Spend time outside of class lessons to address people's concerns?

14. Take time to review material already taught?

15. Avoid offending and embarrassing people?

16. Encourage learners to help each other learn?

17. Plans class lessons and prepares teaching aids in advance?

18. Have an adequate knowledge of what is being taught?

19. Encourage and respond positively to criticism and ideas offered by the learners?

20. Show openness and honesty?

21. Willingly admit mistakes or a lack of knowledge on things he does not know?

22. Respond to people's errors with patience and with constructive criticism?

23. Give insight to people on how, what they learn can be used in the learner's lives?

24. Cover all the work that was planned for class lessons?

25. Emphasize and repeat important ideas?

26. Show respect and loyalty to the learners?

Hopefully this checklist will offer the health worker some ideas on what to evaluate when measuring their teaching effectiveness.

In conclusion, this section on evaluations should have pointed to the importance of conducting evaluations as a means of accounting for the program's progress and of improving the health program's effectiveness and efficiency. Good evaluations will measure the effectiveness of the program design, the instructors, the learners, and the results of the program. Health workers should be prepared

to give constructive criticism and to involve the learners in the evaluation process. Use of the four types of evaluation - continuous, periodic, final, and follow-up evaluations - will be necessary for a program's success at all stages of the program's development. Stating clearly stated behavioral objectives is necessary for determining if the objectives have met the intended goals. At the end of this section, a checklist for helping health workers evaluate their teaching was provided to assist instructors in measuring their teaching effectiveness.

As a means of summary it seems appropriate to end with two quotes, one from Bryant and White who explain about the purpose of evaluation, and the other from Pisharoti who tells of the importance of using evaluations. Bryant and White[6] write that:

> "The most frequently used criteria for judging a project positively or negatively are to determine how clearly it accomplishes the original goals of the project and whether it does so in an efficient manner."

Pisharoti[7] states that:

> "Plans for evaluation are an integral part of the programme plan and must be built into it. It is the administrator's most effective tool for testing programme premises, planning, and improving programme performance."

Footnotes to Part V

1. K. A. Pisharoti, Guide to the Integration of Health Education in Environmental Health Programmes (Geneva: World Health Organization, 1975), p. 32. Pisharoti quotes B. J. Roberts, "Concepts and Methods of Evaluation in Health Education", International Journal of Health Education (1962), Vol. 5, p. 52.

2. Russell D. Robinson, Ph.D., An Introduction to Helping Adults Learn and Change (Printed in the U.S.A., 1987), p. 101.

3. David Werner and Bill Bower, Helping Health Workers Learn: A Book of Methods, Aids, and Ideas for Instructors at the Village Level (Palo Alto, Calif.: The Hesperian Foundation, 1982), p. 9-15.

4. Ibid., p. 9-12.

5. Ibid., p. 9-17. The authors information is adapted from a list made at a training program for students in the field of community health. The training program was led by Fred Abbatt who is the author of Teaching for Better Learning.

6. Coralie Bryant and Louise G. White, Managing Development in the Third World (Boulder, Colo.: Westview Press, Inc., 1982), p. 149.

7. K. A. Pisharoti, Guide to the Integration of Health Education in Environmental Health Programmes (Geneva: World Health Organization, 1975), p. 32.

Conclusion

The purpose of this paper was to help health workers to become more effective teachers among third world people. The effectiveness of the instructor can be measured by the health worker's success in bringing about permanent changes in the learners' attitudes and behaviors. Health workers can only be successful, if they are effective and influential communicators. Without good communication skills, even the most knowledgeable health workers will fail to bring about permanent changes in people's health attitudes and practices.

Part I on cultural analysis oriented the health worker to traditional medicine, and to the cultural beliefs and practices of third world people. In order to be an influential communicator, the health worker will first have to understand people's cultural beliefs and practices, as well as their hopes and problems. The effective communicator will attempt to address people's needs and problems when teaching.

Part II on educational psychology familiarized the health worker with how to deal with people's resistance to change, how to communicate persuasively, and explained the importance of using reinforcement as a means of helping people become motivated to change their attitudes and behavior patterns.

Part III on the learning process showed how the health worker communicates determines the type of psychological learning climate that is created. Part III also gave the health worker.

some tips on how to communicate that a remedy is harmful without offending people, and on how to communicate in such a way so as to help people understand new ideas.

Part IV on teaching methods showed health workers that communicating through a variety of channels or teaching techniques helps to maintain the learners' interests, and gets student to learn more than if the same teaching technique is always used. A variety of teaching methods gave health workers some ideas on what teaching techniques can be used in class lessons.

Part V on evaluations explained that evaluations are an important means of accounting for the program's progress and of determining the health program's effectiveness and efficiency. Evaluations should be concerned with measuring the effectiveness of the health workers teaching and communications skills, the learners' progress in learning, the effectiveness and efficiency of the program design, and the results of the program. To assure the success of a program in all phases of its development, four types of evaluation should be used, namely continuous, periodic, final, and follow-up evaluations.

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